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Registered nurses' perceptions of their knowledge and skills towards clinical supervision of preregistration nursing students, during clinical placement in hospital settings

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Registered nurses' perceptions of their knowledge and skills towards clinical supervision of pre-registration nursing students, during clinical placement in hospital settings

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This thesis is submitted in fulfilment of the requirements for the award of the degree

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Dedication

This thesis is dedicated to my husband Mupiwa Zebron and my sons Abraham and Joel who have been a constant support throughout this study. Without your love and encouragement, this adventure would not have been possible. You have taught me to remain positive against all odds. I also dedicate this study to my late parents who taught me never to quit: their ‘Once started, finish theory’. I have carried this lesson throughout my life. Thank you, Mum and Dad. Rest in peace, I love you forever.

Abstract

Background

Clinical placement (also known as workplace experience) is an integral part of nursing education training programs worldwide. The successful completion of stipulated hours of clinical placement under the direct supervision of a registered nurse is a requirement for students to be eligible for nursing registration. To ensure students have an optimal clinical experience and are ready to practice when they enter the workforce, they should be supervised by nurses who have the appropriate clinical supervision knowledge and skill set for the role. There are no clear criteria for choosing who should be assigned to supervise students. It is expected that every registered nurse is able to supervise students during their shift, as clinical supervision is considered an inherent role of the nurses' Standard of Practice. However, evidence from the available literature suggests that some registered nurses who supervise nursing students during clinical placements do not have the appropriate knowledge or skills to undertake the role. Most of the available evidence is based on students' evaluations of their clinical placement experience, with few studies focusing on bedside nurses, the majority of whom undertake this important role.

Aim

The aim of this study was to investigate registered nurses' perceptions of their knowledge and skills towards supervising students, during clinical placement in a hospital setting and identify the association between their knowledge and skills and professional characteristics.

Methods

A descriptive cross-sectional self-administered survey was administered to registered Nurses working at a metropolitan tertiary referral and teaching hospital in NSW. The modified Clinical Supervision Self-Assessment Tool (mCSAT) comprising of 30 mCSAT–knowledge items and 30 mCSAT–skill items was used to collect data. Each item was scored on a 5-point likert scale from strongly agree to strongly disagree, and the minimum and maximum scores obtainable for knowledge and skills were 30 to 150 respectively. SPSS software version 22 was used for data analysis. Data were summarised using descriptive statistics. A one-way analysis of variance was used to

identify the association between professional characteristics and knowledge and skills for clinical supervision.

Results

A total of 232 registered nurses participated in this study for a response rate of 58%. The mean age of the participants was 38.5 years (SD± 11.3) and 77.7% (n=178), were female. Approximately 36.6% of the nurses (n=85) had not completed any formal clinical supervision training. The mean scores for overall knowledge was 116.59 (SD ±20.49) and for skills was 115.60 (SD± 22.19). The mean scores on the subscale of facilitating was 36.21 (SD ±5.47) for knowledge and 35.90 (SD± 5.74) for skill. The mean scores for the subscale of problem-solving was 39.28 (SD± 6.57) for knowledge and 39.29 (SD± 6.85) for skill. The mean scores on the subscale of evaluating learning was 41.62 (SD± 8.62) for knowledge and 41.62 (SD± 8.76) for skill.

A one-way analysis of variance yielded significant differences in mCSAT–knowledge and mCSAT–skill based on the type of clinical supervision training. Nurses who had completed a hospital-based in-service program (M = 119.86 ± 18.95, 95% CI [116.16, 123.57]) had significantly higher mCSAT–knowledge scores than those who had no previous training in clinical supervision (M = 110.15 ± 19.80, 95% CI [105.86, 114.45]), p < 0 001. Similarly, participants who had completed a hospital-based in-service clinical supervision training program (M = 119. 60 ± 20.00, 95% CI [115. 67, 123.53]) had significantly higher mCSAT–skill scores than those who had no previous training in clinical supervision (M = 109.12 ± 21.73, 95% CI [104.35, 113.89]), p < 0 001. No other professional characteristics yielded any significant association with nurses' knowledge or skills of clinical supervision.

Conclusion

The study results demonstrated that having clinical supervision training was a significant factor for gaining knowledge and for the development of skills relating to clinical supervision. Given that 36% of the nurses did not have any clinical supervision training it is important that universities and health service providers develop collaborative strategies and opportunities for ongoing professional development in relation to knowledge and skills for clinical supervision for nurses. Further multicentre

studies across various settings using larger samples are warranted to substantiate the results of this study.

Key Words: Registered Nurse, Supervisor, Mentor, Preceptor, Clinical practice, Clinical Placement, Clinical learning environment, Pre-registration nursing student, Nursing students.

Thesis Certification

I, Jesina Chigavazira, declare that this thesis, submitted in partial fulfilment of the requirements for the award of Master of Philosophy in the School of Nursing in the Faculty of Sciences, Medicine and Health, University of Wollongong, is wholly my work unless otherwise referenced or acknowledged. This document has not been submitted to any other Higher Educational Institute or University.

I agree that this thesis be accessible for the purpose of study and research in accordance with the normal conditions established by the Executive Director, Library Services or nominee for the care, loans and reproduction of thesis.

Jesina Chigavazira

Dated: 28th September 2019

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Thank you, Ritin, Maria and Sam for sharing your lives with me. Your footsteps in my life will never be erased. I am so grateful. Thank you for believing in me.

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Thank you all.

Contents

Definition of Terms

Term	Definition
Buddy Nurse	A registered nurse who works alongside pre-registration nursing students and provides one-to-one, direct clinical supervision to the pre-registration nursing student at the bedside during a designated shift (Walker et al. 2008).
Clinical Facilitator	A registered nurse who is employed by the university to supervise and assess the pre-registration nursing student in practice. The clinical facilitator has the responsibility to sign off the final assessment of the student (Mackay et al. 2018).
Clinical Placement	A component for pre-registration nursing students in their program of study in which they are involved in real-life patient care under the direct supervision of registered nurses (Brynildsen et al. 2014; Levett-Jones et al. 2015; Birks et al. 2017).
Clinical Supervision	Clinical supervision is defined as 'the process of professional support and learning in which pre-registration nursing students are assisted to develop their practice through regular discussion time with experienced and knowledgeable colleagues' (Fowler, cited in Brunero & Stein-Parbury 2011, p. 87).
Clinical Supervisor	All registered nurses in clinical practice who undertake the role of supervising and assessing pre-registration nursing students.
Education Institution	In this study, Education Institution refers to a Higher Education/university/tertiary education organisation that offers undergraduate nursing education training programs.
Health Service Provider	In this study, Health Service Provider refers to the acute or subacute metropolitan hospital setting that offers clinical placement to pre-registration nursing students.

Term	Definition
Preceptor	Registered nurses who work for the host health provider and provide the overarching supervision of students in practice (Smedley et al. 2010). A preceptor is assigned to the student for the duration of their clinical placement and assessment is generally shared between the preceptor and the registered nurse who works with the student at the bedside.
Pre-Registration Nursing Student	Undergraduate nursing students who are studying at the university to become eligible to register with the nursing registration board as a registered nurse (APHRA 2012).

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List of Abbreviations

AHPRA	Australian Health Practitioner Regulation Agency
ANAMC	Australia Nursing and Midwifery Council
ANOVA	Analysis of Variance
CNC	Clinical nurse consultants
CNE	Clinical nurse educators
CPD	Continuous professional development
DNMS	Director of Nursing and Midwifery Services
FTE	Full-time equivalent
HREC	Human Research and Ethics Committee
HWA	Health Workforce Australia
mCSAT	modified Clinical Supervision Self-Assessment Tool
NCAS	Nursing competencies assessment schedule
NE	Nurse educators
NSW	New South Wales
NUM	Nurse unit managers
PIS	Participant information sheet
SSA	Site specific authorisation
SWSLHD	South Western Sydney Local Health District
UK	United Kingdom
US	United States

Chapter 1. Background

1.1. Introduction

This chapter provides the background to the study conducted in a large tertiary teaching hospital. It describes clinical supervision and its importance in practice. It outlines the significance of this study, aims and research objectives and provides a diagram of the thesis structure.

A registered nurse within the Australian context is a person who has completed (as a minimum) a three-year Bachelor in Nursing or equivalent and is registered with the Nursing and Midwifery Board of Australia and the Australian Health Practitioner Regulation Agency (AHPRA). A pre-registration nursing student is a person studying to become a registered nurse.

In this thesis, 'registered nurse' refers only to nurses who work at the bedside with pre-registration nursing students. Registered nurses are referred to as nurses and pre-registration nursing students as nurse. It is also important to note that this study was part of a larger study which assessed nurses' perceived knowledge, skills and attitudes towards supervision of students, however only data for knowledge and skill was used in this thesis.

1.2. Background

Traditionally, nursing training was delivered in a hospital setting using an apprentice model (Orsolini-Hain & Waters 2009). In the last decades, nursing education in most countries has been predominantly undertaken in the university sector (Faison 2012). In this model of nursing education, students receive the theory component at the university and require clinical placement for the practice component in a hospital setting.

Clinical placement (also termed workplace experience) is premised on the adult education principles of experiential and reflective learning, in which students integrate theory and practice through active participation in patient care (Brynildsen et al. 2014; Levett-Jones et al. 2015; Birks et al. 2017). During clinical placement, students are provided with opportunities to integrate theory and practice as they work under the

direct supervision of nurses in a real-life setting (Courtney-Pratt et al. 2012; Creedon & Cummins 2012).

It is a prerequisite for students to complete a stipulated number of hours of clinical placement during their pre-registration degree to be eligible to register to practice as a nurse (Council 2006; National Council of State Boards of Nursing 2016; Nursing and Midwifery Council 2016). Hours of clinical placement may vary from country to country, ranging from 736 hours in Japan to 2,500 in the United Kingdom (UK). In the Australian context, students are expected to complete 800 hours (ANMAC 2012; Honda et al. 2016). The required clinical placement hours must be completed under the direct supervision of nurses working with the students at the bedside (Abiddin 2008; Smedley et al. 2010; Chipchase et al. 2012).

Clinical supervision is an integral component of contemporary nursing education. Clinical supervision is defined as 'the process of professional support and learning in which students are assisted to develop their practice through regular discussion time with experienced and knowledgeable colleagues' (Fowler, cited in Brunero & Stein-Parbury 2011, p. 87). This concept derives from the era of Florence Nightingale, when students were directly supervised by experienced nurses who were trained to train (Myrick 1998). The term is often used to refer to a role that involves both provision of patient care and oversight of students in practice (Fitzpatrick et al. 2012).

Studies report that effective clinical supervision ensures that students are provided with opportunities to integrate theory and practice (Courtney-Pratt et al. 2012; Creedon & Cummins 2012) and acquire essential knowledge and skills (Gleeson 2008; Chipchase et al. 2012). The main purpose of clinical supervision is to ensure students are ready to enter the workforce (Gleeson 2008; Chipchase et al. 2012). The quality of clinical supervision is vital to the development of capable and competent professionals (HWA 2010; Ford et al. 2016). It is also well documented in literature that clinical supervision improves nursing practice and, thus, is linked to the provision of quality care and safe patient outcome (McCall et al. 2009; Hansen et al. 2011; Davis & Burke 2012; Koivu et al. 2012).

Conversely, poor clinical supervision has been highlighted as a significant factor that leads to the production of nurses who are not work-ready (Courtney-Pratt et al. 2012),

potentially leading to unsafe practice and, ultimately, poor patient outcomes (Dawson et al. 2013). Clinical supervision can also be understood according to its functions (Rice et al. 2007, cited in Lindquist et al. 2012). It could be a forum for learning, supporting, educating, monitoring or evaluating student performance (Dilworth et al. 2013). It can also be viewed as a tool to measure patient outcome or to monitor staff performance; however, there is some fear that it may become a form of managerial control (White & Whinstaley 2010, cited in Dilworth et al. 2013; Davis & Burke 2012). In this study, clinical supervision refers to an informal role in which nurses play a pivotal role in providing one-to-one clinical supervision to students during their shift.

Various clinical supervision models are used in hospital settings worldwide. The predominant and most commonly used models include the preceptor, collaborative and facilitator models (Gleeson 2008; Russell et al. 2011; van der Riet et al. 2018). The preceptor and collaborative model are commonly used in the UK, United States (US), Canada, South Africa and Japan (Cloete & Jeggels 2014; Honda et al. 2016), while the facilitator model is used in Australia (Gleeson 2008; Russell et al. 2011; van der Riet et al. 2018).

In the preceptor model, the clinical supervision role is an appointed role and the preceptor is formally trained and accredited for the role (Myall et al. 2008; Bennett & McGowan 2014; Cloete & Jeggels 2014; Vinales 2015a; Honda et al. 2016). The preceptor provides supervision on a continuous basis for the entire duration of the student's clinical placement, but may or may not have responsibility for direct patient care (Bennett & McGowan 2014; Vinales 2015a). Assessment of the student is a shared responsibility between the preceptor and the nurse who works with the student at the bedside (Cloete & Jeggels 2014; Carlson & Bengtsson 2015). The preceptor is responsible for signing off the student's final clinical assessment performance at the end of the clinical placement.

Similarly, in the collaborative model the primary supervisor is trained for the role and student supervision is a shared responsibility between the nurses working at the patients' bedside and their primary supervisor (van der Riet et al. 2018). However, students undertake and complete all the required hours of their entire clinical placement experience in one health service provider to familiarise themselves with the policies and

procedures of that health service provider and provide competent nurses after graduation (Barnett et al. 2010, Franklin 2013; van der Riet et al. 2018).

In the clinical facilitator model, student supervision is a shared responsibility between the clinical facilitator employed by the university on a sessional basis or seconded for a short period of time and the nurse working with the student at the bedside. The clinical facilitator provides debriefing sessions and an overarching level of supervision for a group of students deployed across different departments within the health service provider (Brammer 2008; Smedley et al. 2010.The clinical facilitators are not responsible for patient load. Furthermore, clinical facilitators provide nurses with supervisory support for issues pertaining to the students on clinical placement (HWA 2010) and they are solely responsible for completing the final clinical performance assessment for the students. Nurses are expected to contribute to the students' final performance assessment by providing objective feedback to the facilitator.

In fact, none of these models guarantees a perfect educational experience and every model has its merits and limitations. The choice of the model is dependent on its appropriateness for the clinical context in which it is used. Irrespective of the model used, nurses are at the forefront of providing direct supervision of the students at the point of care. Hence, their clinical supervision knowledge and skills are paramount.

1.3. Significance of the Study

It is evident that nurses working at the bedside predominantly supervise students. These nurses spend most of the time with the students, compared to the university-employed supervisors. Hence, their professional and supervisory relationship with the student is crucial. Nurses are perceived as the primary source of support for students on clinical placement (Omer et al. 2016). They play a pivotal role as protector, educator, guide, role model, problem solver and evaluator (Huybrecht et al. 2011; Omer et al. 2016). The protector role is mainly to protect students from making errors that could harm patients. Further, they are expected to be competent in assessing students' performance to ensure that students become safe practitioners. If students are not supported, there is a high risk of students leaving the nursing profession to pursue other professions (McCall et al. 2009), creating a shortage in the nursing workforce. Therefore, it is important to ensure that nurses are equipped with the appropriate knowledge and skills for this pivotal role.

Evaluation reports from preceptors and mentors show that nurses are willing to provide clinical supervision to students in practice. However, the majority experience role ambivalence that affects their commitment to the role (Omansky 2010; Raines 2012; O'Brien et al. 2014; Carlson & Bengtsson 2015). Nurses were also found to be unsure of the role expectations (Martin et al. 2011) and, thus, attempt to avoid undertaking the role. There is limited literature focusing on nurses' knowledge and skills relating to clinical supervision from the nurse's own perspective. This study explored this area of nursing education.

1.4. Research Aim

The aim of the study was to investigate registered nurses' perceptions of their knowledge and skills towards supervising students, during clinical placement in a hospital setting and identify the association between knowledge and skills to professional characteristics.

1.5. Research Objectives

The objectives of the thesis were to:

1. investigate nurses' perception of their knowledge and skills towards clinical supervision of students during clinical placement
2. Identify the differences in nurses' perceptions of their knowledge and skills of clinical supervision based on their professional attributes.

1.6. Theoretical framework

Learning theories provide the means to explain the complex processes involved in the acquisition of new knowledge and skills. The theoretical framework for this study was the Mezirow's (1991) transformational learning theory. Informed by the principles of adult learning, the Mezirow's learning theory posits that the goal of transformational learning is to help learners to become autonomous thinkers (Mezirow, 1994). Within this thesis, this theory provided a theoretical basis that influenced the understanding of the knowledge and skills required for effective clinical supervision. The Mezirow's theory of transformational learning places emphasis on critical self- reflection and engagement

in critical dialogue of one's assumptions, beliefs, and values, ways of doing things and attitudes towards different aspects of teaching and learning. The underlying assumption was that supervising students in practice requires nurses to develop their clinical practice through transformational learning experiences.

Critical reflection and engagement in critical dialogue are important elements that facilitate effective transformational learning (Fazio-Griffith & Ballard, 2016; Mälkki, 2010; Jones, 2009). As a result, registered nurses can acquire appropriate knowledge and skills to ensure that they are more inclusive, open, flexible and adaptable to change when supervising students (Mezirow's, 2003; Kitchenham, 2008). Implementation of Mezirow's learning theory assist nurses to apply different strategies embedded in the theory such as developing action plans, reflective activities, use of case studies and real –life examples and creating a supportive culture in their clinical supervision role (Mezirow, 1994). The theory can be understood related to this study as a cyclic and revolving process of transformation and professional development, see figure 1 below.

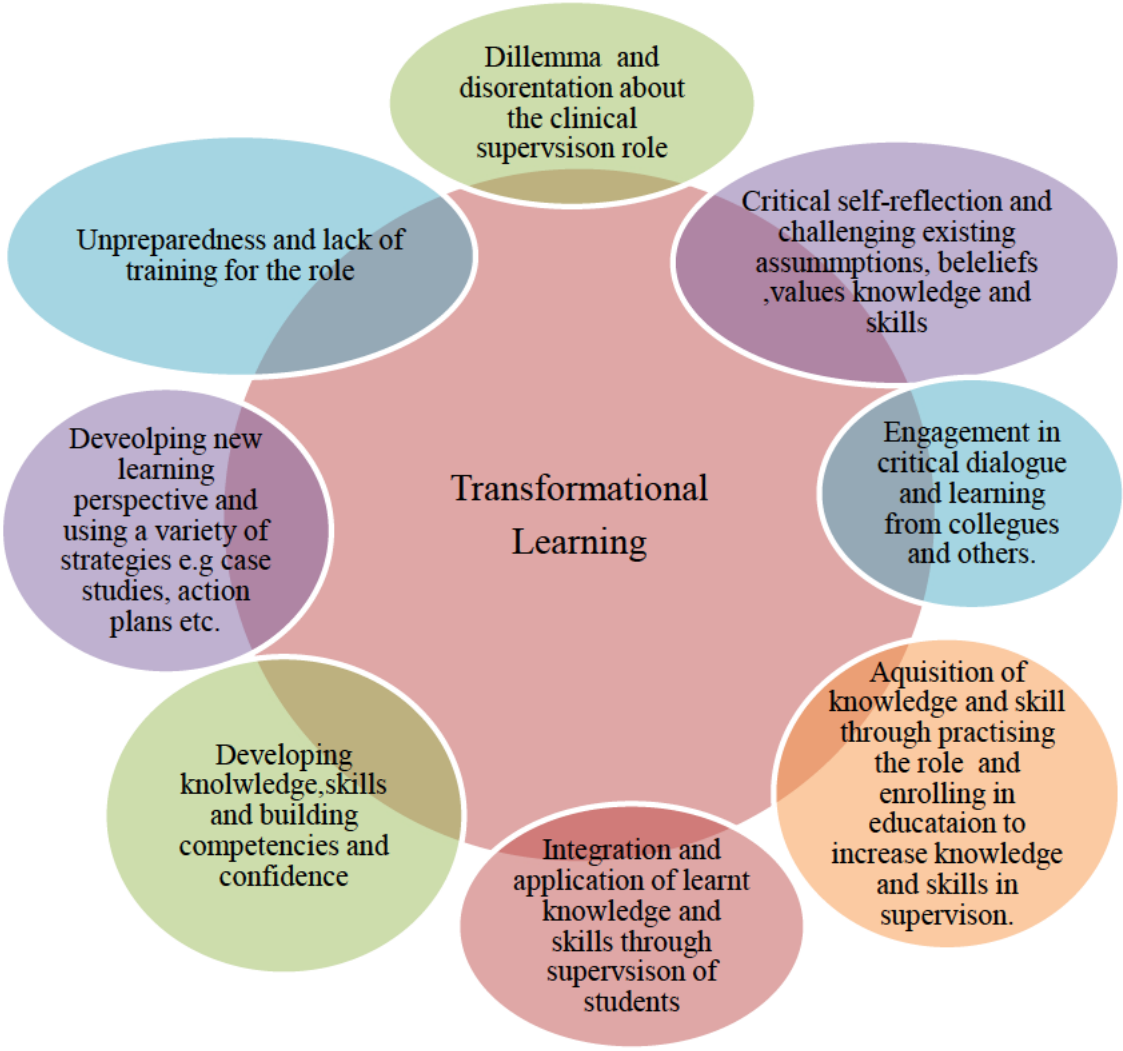

Figure 1 Theoretical Framework

1.7. Thesis Overview

An overview of the thesis is provided in Figure 2.

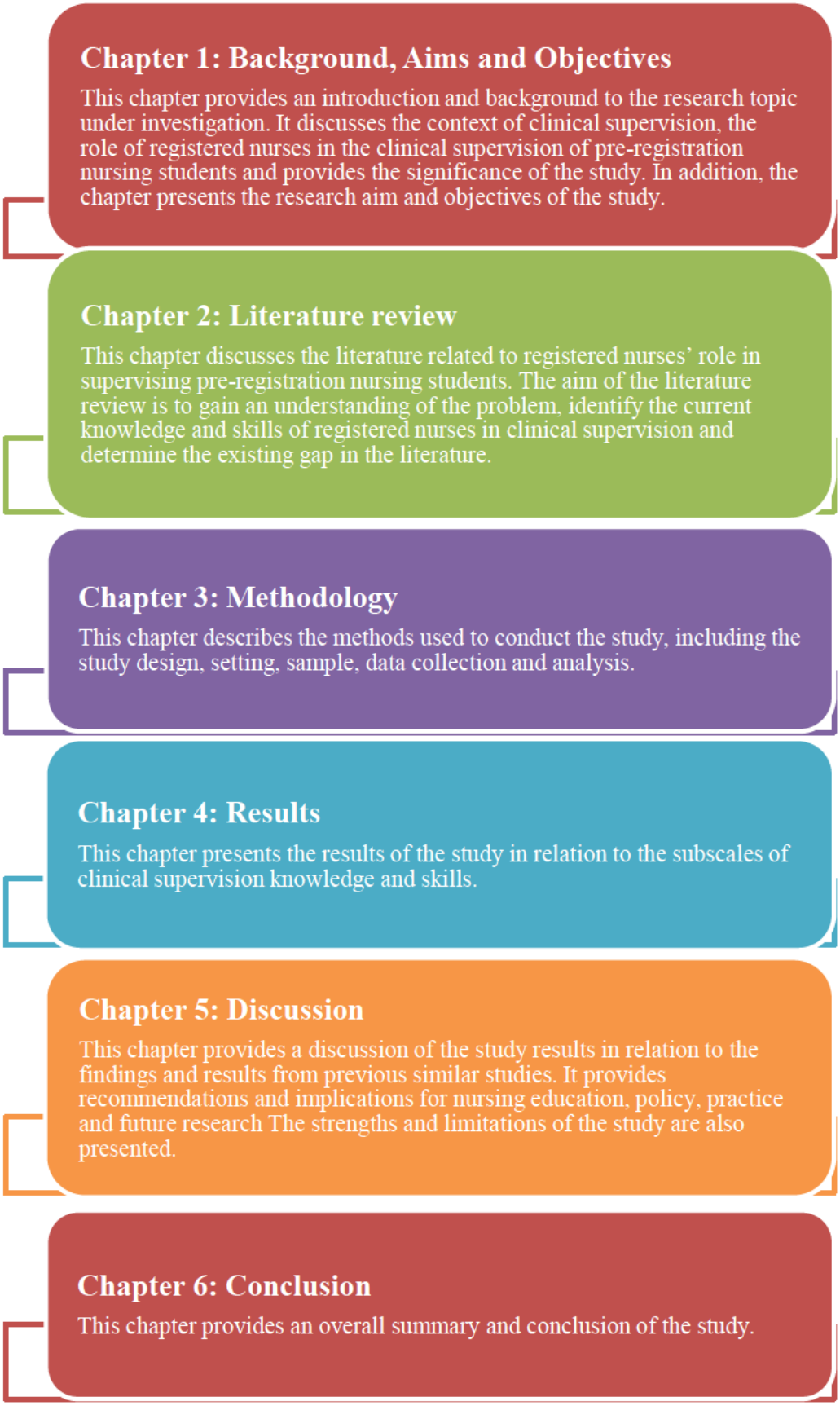

Figure 2. Thesis overview.

1.8. Conclusion

This chapter presented an introduction and background to the study conducted to investigate nurses' perceptions of their knowledge and skills regarding clinical supervision of students in hospital settings. It described clinical supervision and its importance during students' clinical placement, the significance of this study, the study aim and objectives and a graphical overview of the thesis organisation. The next chapter presents the literature review for this study.

Chapter 2. Literature Review

2.1. Introduction

This chapter discusses the literature related to clinical supervision of students in practice. First, the chapter presents a discussion of the role of bedside nurses in regard to student clinical supervision, the attributes required for effective clinical supervision and preparation of nurses for the role of clinical supervision. Second, it presents a scoping review related to nurses' experiences of supervising students during clinical placement in hospital settings.

Further the chapter presents the search strategy for the scoping review. Findings of a worldwide view of the literature will be discussed. The discussion focuses on the similarities, differences and general trends related to nurses' roles and responsibilities of clinical supervision and the issues that influence the effectiveness of clinical supervision of student in practice.

2.1.1. Bedside nurses as clinical supervisors

Clinical supervision is an inherent role of nurses within their 'Standards for Practice' (Leger 2010; Omansky 2010; ANMAC 2016). Apart from their primary role of patient care, nurses are also responsible for supervising students working directly with them during their shift (HWA 2010; ANMAC 2016). While clinical supervision is a shared responsibility between the university and the health service provider (Cloete & Jeggels 2014; Vinales 2015b; Honda et al. 2016; van der Riet et al. 2018), the overall responsibility for supervising students belongs to their primary supervisor (Barnett et al. 2010; Smedley et al. 2010; Franklin 2013). Primary supervisors (often referred to as clinical facilitators, preceptors or academics) assume a formal and appointed role, while the nurses assume an informal and temporary role assigned on a shift by shift basis (Russell et al. 2011; Mackay et al. 2018; van der Riet et al. 2018).

The nurses' level of responsibility is dependent on the model of clinical supervision used and the country in which it is used. Nonetheless, in each model, nurses share clinical supervision responsibilities with the students' primary supervisors (Cloete& Jeggels 2014; Vinales 2015b; Honda et al. 2016; van der Riet et al. 2018). However, primary

supervisors are not responsible for the provision of patient care and do not provide one-to-one direct supervision of the students at the bedside. In NSW, the current contractual requirement within the public health service providers is one clinical facilitator to eight students. This equates to one hour per student per day (Health Education Training Institute 2013). This staff–student ratio makes it difficult to provide one-to-one supervision. Hence, bedside nurses predominantly provide one-to-one clinical supervision to students as they work with them at the patient's bedside (Russell et al. 2016).

This means, nurses have a dual responsibility to provide quality care to a full patient load and supervise students during their shift (Aghamohammadi-Kalkhoran et al. 2011; Sharrock et al. 2013). They are expected to provide students with learning opportunities that enable them to practice and develop clinical skills and ensure students become safe and competent nurses when they enter the workforce (Leger 2010; Hovland 2011; Madhavanpraphakaran et al. 2014). In fact, spend more time with students providing one-to-one direct clinical supervision at the patient's bedside therefore, they have a greater influence on students' clinical placement outcomes (Aghamohammadi-Kalkhoran et al. 2011; Smedley et al. 2010; Gidman et al. 2011; Jokelainen et al. 2013; Ford et al. 2016).

Therefore, to ensure students achieve the required clinical learning outcomes and meet the current national competency standards for registration (HWA 2010), nurses need to have professional attributes relevant for clinical supervision role, be prepared for the role and have the ability to seek and incorporate contemporary and evidence-based perspectives of clinical nursing practice (HWA 2014).

2.1.2. Characteristics and skill sets required

The professional attributes of the nurse supervising the student has been reported to determine the student's clinical learning outcomes in practice (Waldock 2010; Courtney-Pratt et al. 2012). To provide the best clinical experience for students, the clinical supervision role should be undertaken by nurses who have clinical supervision characteristics and skill sets (Levett-Jones et al. 2009; Smedley et al. 2010). Nurses' clinical supervision knowledge and skills can significantly facilitate or hamper students' clinical learning (Levett-Jones et al. 2009; Smedley et al. 2010). Their characteristics

and skill set determine their ability to undertake the role and, subsequently, influence the quality of clinical supervision students receive (Edgar & Connaughton 2014; Ford et al. 2016; Bearman et al. 2018).

Clinical supervision characteristics and skills such as good interpersonal skills, communication skills, knowledge of educational and clinical practice (including structural and organisational dimensions), clinical expertise, professionalism and the ability to establish trusting social relationships with students and colleagues have been reported to be effective in clinical learning (Hughes 2009; Edgar & Connaughton 2014; Banneheke et al. 2017; Bearman et al. 2018). Findings from previous studies have highlighted that having the appropriate characteristics and skill set for clinical supervision creates a safe learning environment for students and increases students' confidence, sense of belonging, engagement, motivation and self-esteem (Banneheke et al. 2017; Bearman et al. 2018) (see Table 1).

Conversely, nurses who lack appropriate clinical supervision skills find it difficult to create an environment conducive to students' learning or establish relationships with students (Bearman et al. 2018). Students' views indicate that these nurses are over-controlling, undermine students and expect too much from students without considering their level of enrolment (Edgar & Connaughton 2014; Bearman et al. 2018). These nurses are considered task-orientated, unable to explain to the students what they will be doing and find it difficult to let go (Walker et al. 2008; Bearman et al. 2018). This behaviour could be attributed to a lack of training or poor training for the role.

Table 1. Characteristics for Effective Clinical Supervision

Dimension	Characteristics	Benefits
Interpersonal skills (Edgar & Connaughton 2014)	▪ approachable ▪ genuine interest with students ▪ friendly ▪ lovely ▪ respectful ▪ interest in student ▪ empathy ▪ mediation ▪ advocate dealing with conflict.	▪ allows students to feel comfortable when they ask questions and not stupid or silly ▪ increases student confidence ▪ increases students' self-esteem enhances learning ▪ maintaining student motivation.
Communication skills (Edgar & Connaughton 2014; Bearman et al. 2018)	▪ good communication ▪ honesty ▪ supportive ▪ enthusiasm ▪ listening skills ▪ diplomacy.	▪ creates safe environment ▪ confidence ▪ increases students' self-esteem ▪ enhances learning ▪ maintains student motivation.
Educational skills (Edgar & Connaughton 2014; Bearman et al. 2018)	▪ encourages learning ▪ instil confidence ▪ willingness ▪ willing to explain things ▪ available all the time and 'give you opportunity to do things yourself rather than just going in themselves and doing the job' ▪ ability to give constructive feedback	▪ promotes student confidence ▪ encourages asking questions ▪ gives a lot of opportunities to practice skills ▪ increases self-esteem ▪ enhances learning ▪ promotes self-directed learning.

Dimension	Characteristics	Benefits
	▪ teaching skills ▪ assessment skills ▪ developing a range of teaching strategies ▪ scaffolding ▪ observation ▪ have a range of learning styles and know how they respond.	
Clinical expertise (Edgar & Connaughton 2014; Bearman et al. 2018)	▪ experience and clinical expertise ▪ role model ▪ ability to assist learners explore their strength, weaknesses and learning goals.	▪ promotes confidence ▪ allows guided reflection ▪ encourages development of insight ▪ enhances learning ▪ maintaining student motivation.
Professional and social relationships (Bearman et al. 2018)	▪ rapport building ▪ building trusting ▪ supervisory relationship ▪ sense of humour ▪ does not undermine the student.	▪ builds trust ▪ increase student confidence ▪ make students feel worthy and welcomed ▪ increases students' self-esteem ▪ enhances learning ▪ stimulating reflection.
Clinical practice (structural and organisational) (Edgar & Connaughton 2014; Bearman et al. 2018)	▪ managing logistics of clinical education ▪ considering organisational structure for learning ▪ making clear plans ▪ time management planning teaching strategies.	▪ improve work structure ▪ ensure student learning ▪ maintaining student motivation.

2.1.3. Preparation for clinical supervision

Nurses are allocated clinical supervision responsibilities on the basis of availability from the rotating roster and most are not trained for the role (Omansky 2010). There are no specific selection criteria for choosing which nurse can be assigned to supervise students. Nurses are assigned to undertake the role based on the misled assumption that every nurse acquires the requisite knowledge and skills to supervise students through experience (Chuan & Barnett 2012). Although, it is documented that clinical supervision training programs and workshops increase nurses' confidence in supervising students (Smedley et al. 2010; Carlson & Bengtsson 2015; Mackay et al. 2018), clinical supervision training is not a prerequisite for undertaking the clinical supervision role.

However, nurses may not be necessarily equipped with the appropriate knowledge or skills to competently undertake the clinical supervision role (McAllister 2011). Being a nurse does not necessarily translate into the ability to supervise students or others (Brammer 2008; HWA 2010). In addition, empirical evidence from previous studies indicates that nurses find it difficult to balance patient care and student supervision (Health Education Training Institute 2013). Further, clinical placement evaluation results indicate that students are of the view that nurses tend to prioritise patient care and consider the role of supervising students as a job for university-employed clinical facilitators (Aghamohammadi-Kalkhoran et al. 2011; O'Brien et al. 2014).

Findings from studies that explored the training and preparation of nurses for the clinical supervision role identified that nurses needed to know core elements such as: role expectations, students' clinical objectives, how to establish a relationship with the students, how to role model, how to guide students, problem solve, give feedback and think critically (Rogan 2009; Huybrecht et al. 2011; Martin et al. 2011). Therefore, it is unclear whether nurses perceive themselves as having the appropriate knowledge or skills to undertake the clinical supervision role or even consider it as their role. Thus, it can be argued that supervising students in practice is questionable.

Consequently, if students are not supervised effectively, there is a potential risk that the next generation of nurses entering the workforce may not have acquired the essential professional attributes to provide safe and quality nursing care to the community in the future (Brammer 2008; Gleeson 2008). However, an evaluation of nurses' ability to

competently supervise students during clinical placement is mostly skewed towards the student's perspective; there is paucity of literature from the nurses' own perspective. Therefore, this study seeks to investigate the nurses' own perspective regarding their knowledge and skills for the clinical supervision of students in hospital settings.

The next section presents a scoping review of the literature related to nurses' experiences of supervising students during clinical placement in a hospital setting. The nurses described in the review are those who work with students at the bedside for one or more shift and are not the students' principal supervisors from the education institution.

2.2. Scoping Review

2.2.1. Aim

The aim of the review was to scope the existing literature to identify the perceptions of nurses working at the bedside relating to supervising students during clinical placement in hospital settings.

2.2.2. Definition and purpose

A scoping review is a type of systematic review (Armstrong et al. 2011; Joanna Briggs Institute 2015). Described as the 'process of mapping existing literature based on a specific topic', scoping reviews are also referred to as mapping reviews (Peters et al. 2015; Munn et al. 2018). While a typical systematic review aims to 'answer a specific question or a series of questions according to a rigid set of priori delimiting factors detailed in the protocol, a scoping review has a broader approach' (Peters et al. 2015, p.142). The scoping review differs from other systematic reviews in that it provides an overview or snapshot of the existing literature that underpins the area of study without quality assessment of the included studies or extensive data analysis (Peters et al. 2015). A formal assessment of the methodological quality of the included studies is not performed; hence, scoping reviews are intended to be conducted reasonably rapidly as in this study. Scoping reviews can be useful in that they can be conducted to inform the scope of a systematic review, summarise and disseminate findings or identify gaps in the literature and make recommendations for future research (Munn et al. 2018).

2.2.3. Objectives

The objectives of the scoping review were to identify the perceptions of nurses working at the bedside relating to the following:

1. their roles and responsibilities during the clinical supervision of students on clinical placement
2. the benefits of supervising students during clinical placement
3. the benefits of attending clinical supervision training programs
4. the barriers and challenges encountered when supervising students during clinical placement
5. their educational and learning needs for supervising students during clinical placement.

2.2.4. Method

2.2.4.1. Inclusion criteria

The review included quantitative, qualitative and mixed methods studies that focused on nurses who work with students on clinical placement in hospital settings. The studies referred to nurses as the preceptor, or mentor, whose responsibility was to look after a group of patients during a shift while working alongside students.

2.2.4.2. Exclusion criteria

The search excluded studies that focused on the clinical supervision of post-graduate nursing students, midwifery students or qualified nurses. Studies and reports prior to 2008 were excluded, unless the nature of the work was of current significance, as clinical supervision of students has changed since the introduction of clinical placement as part of the student training program. Studies evaluating the nurses' supervision ability of students from students', university and health service providers' perspectives were also excluded. Studies that considered the role of primary supervisor without a role in patient care were also excluded.

Different terms such as preceptor, mentor, buddy and supervisor are often used interchangeably in literature to define the nurse who works along with students at the

bedside (Fitzgerald et al. 2010). Thus, these terms were considered key words for the search.

2.2.4.3. Search strategy

The literature was accessed via academic databases and other sources such Google Scholar and government websites. The databases included Cochrane Library, ProQuest, Education Resource Information Centre, Joanna Briggs, Scopus, PsychoINFO, and Cumulative Index to Nursing and allied Health literature (CINAHL) and Medline.

Search terms

A range of terms that relate to student clinical supervision were used to ensure a comprehensive search of all existing evidence. The search terms used included: clinical supervision, clinical placement, registered nurse, nurse supervisor, preceptor, mentor and buddy nurse, pre-registration nursing student, nursing student, student nurse, undergraduate nurse and clinical practice.

2.2.4.4. Limits

Specific and consistent limits were applied to the search terms to ensure irrelevant studies were excluded. The limits included full text on www or the host institution library, peer-reviewed or academic journals from 2008 to 2018 that were written in English only. The year range was selected to reflect contemporary clinical education nursing issues within the last two decades. Literature predating 2008 that was included only referred to seminal papers of significance.

Three prerequisite key words ‘registered nurse’, ‘pre-registration nursing student’ and ‘clinical placement’ were included in all search combinations. Basic searches using the key words or subject headings were conducted first, followed by advanced searches using the Boolean operators, ‘OR’ ‘AND’ and ‘NOT’.

Strategy 1: First, academic electronic databases were accessed including the Cochrane Library, ProQuest, Education Resource Information Centre, Joanna Briggs, Scopus, PsychoINFO, CINAHL and Medline.

Strategy 2: Grey literature was accessed using Google Scholar, limited to org. and education; dissertation abstracts, Australian digital thesis databases ISI Proceedings and Current Contents. In addition, Australian government, national, state and interstate reports and publications from (HWA 2010, ANMAC 2012) and publications from the University of Wollongong research institute were also considered, to ensure key national issues were not missed.

Strategy 3: Publisher databases Wiley InterScience and Sage were also searched to ensure as much literature as possible were located for consideration for the review.

2.2.5. Data extraction and analysis

For part of the scoping review, a data extraction form was developed to collect all the relevant information aligned with the review objectives (Peters et al. 2015). Three reviewers were involved in data extraction and agreed on the studies that met the inclusion criteria according to the predetermined scoping review protocol. The following data were extracted from the included studies: author, year of publication, method of data collection and analysis, country, phenomena of interest and setting, participants' characteristics and a sample and description of main results or key findings of each study. The summary of extracted data was presented in a logical descriptive tabular form (see Table 2). Finally, the results were discussed according to the main conceptual categories dictated by the objectives of the study.

An overall conclusion in line with the scoping review objectives was drawn based on the results of the review. Gaps in knowledge were identified and recommendations for future research were made (Booth et al. 2013).

2.2.6. Search results

The search yielded 380 potential studies. After discarding 260 duplicates, the remaining 120 were reviewed by the three authors to ensure the inclusion criteria were met. Seventy-four studies were screened and 20 were discarded that included either post-graduate nursing students or students from speciality courses such as midwifery. From the 54 studies that remained, a thorough review was conducted by two experts. From this, 37 studies were excluded as they focused either on community health, general practice, accredited preceptors or mentors and the evaluation of assessment tools for

clinical evaluation. Finally, a total of 17 studies were identified as relevant for the final analysis, as depicted in the PRISMA flow diagram that illustrates the study selection (see Figure 2).

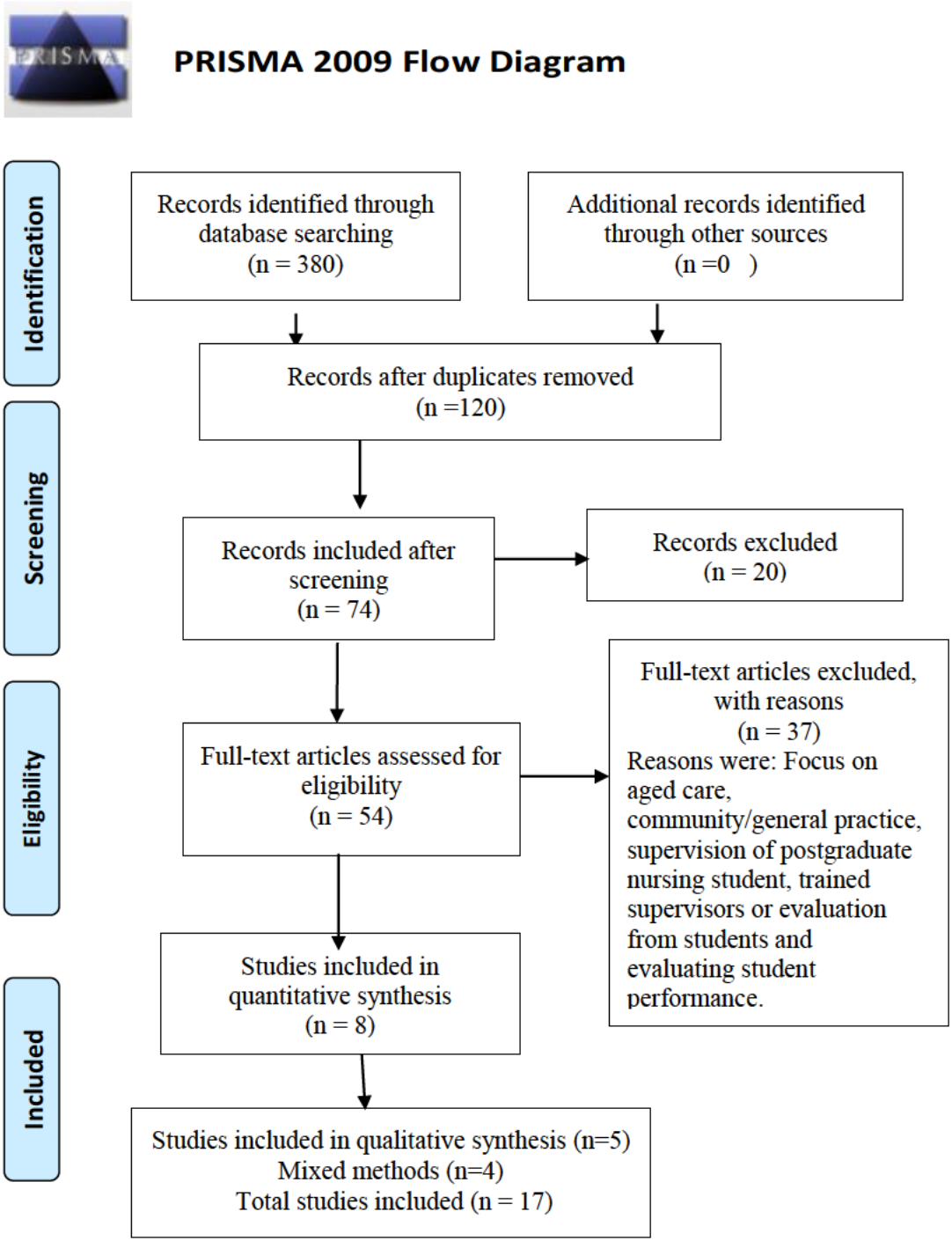

Figure 3. PRISMA flow diagram showing study selection.

Source: PLoS Medicine (open access) Moher et al. The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

2.2.7. Description and quality of the studies

The studies included in the analysis were conducted in Saudi Arabia (Omer et al. 2016), Finland and the UK (Jokelainen et al. 2013), South Africa (Cloete & Jeggels 2014), New Zealand (Haitana & Bland 2011), Iran (Aghamohammadi-Kalkhoran et al. 2011; Parvin et al. 2016), Australia (Walker et al. 2008; Smedley et al. 2010; O'Brien et al. 2014; Ford et al. 2016; Russell et al. 2016; Mackay et al. 2018), the US (Rogan 2009; Madhavanpraphakaran et al. 2014), Ireland (McCarthy & Murphy 2010)**,** Sweden (Bengtsson & Carlson 2015) and Belgium(Huybrecht et al.2011).

The 17 studies comprised of eight quantitative cross-sectional surveys, five qualitative studies and four mixed methods studies. The data in the studies were collected using self-administered questionnaires, semi-structured interviews and open and ended questions. The number of participants included in each study type ranged from 60 to 337 for the quantitative studies, five to 39 for qualitative studies, and 64 to 932 for the mixed method studies.

The limitations for quantitative studies were that they were conducted on single site, used convenience or purposeful sample, which could have limited the generalizability of the results. Among the eight only two used multiple sites. Although multiple sites were used the response rate was low 22.5 %. Only one study used multiple sites and also had high response rate 85.4%. Most qualitative studies used conversional and open ended interviews which could have deterred some participants from openly and honestly expressing their views. However group interactions can also encourage ideas to be explored through open discussion. While mixed methods studies used multiple sites and integrated both quantitative and qualitative data, and their sample size reasonable the response rates were low ranging from 43% to 49%. A detailed description of the 17 studies is presented in Table 2.

Table 2. Summary of Studies Included in the Review

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
(Omer et al. 2016) Saudi Arabia.	Descriptive and comparative design. Data were collected by a two-part questionnaire. SPSS version 20 was used for statistical analysis.	Registered nurses' perceptions to roles and responsibilities in relation to importance and frequency of attendance.	Single site, College of nursing and 900-bed hospital.	Convenience sample n=62. Clinical teaching assistant and hospital employees in medical/surgical, maternity, paediatric and critical care.	Importance of the clinical supervision role: ▪ the role as protector received the highest score (M=3.84, SD± 0.25), compared to the role of evaluator (M=3.17, SD± 0.32), educator (M=3.67, SD± 0.31) and facilitator (M=3.68, SD± 0.31). Frequency of attending the clinical supervision roles: ▪ the mean scores for frequency of attending the roles of protector, evaluator, educator and facilitator were 3.66 (SD± 0.37), 3.47(SD 0.45), 3.35 (SD± 0.45), 3.5 (SD± 0.43), respectively.
(Jokelainen et al. 2013) Finland, UK.	Phenomenological data were collected through focus groups.	Mentors conceptions of facilitating learning for students.	Multisite Healthcare placements centres.	Purposive sample of 39 participants in Finland (n= 22) and UK (n = 17).	Themes identified were: ▪ students should be the focus and respected as individual partners with personal learning goals ▪ placements must fit students' practice and learning ▪ facilitation was seen as guided co-working and spurring to enable a student to attain stipulated nursing competencies ▪ ongoing assessment of students' achievements, learning outcomes and professional attributes were important.

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
(Cloete & Jeggels 2014) South Africa, Western Cape.	Descriptive correlational design. Data were collected using a questionnaire. SPSS version 20.0 was used for analysis.	Perception of preceptors' perceptions of the benefits support and commitment to the preceptor role.	Single site Provincial hospital.	Convenience sample of 60 preceptors after completing a preceptor program.	Preceptor's perceptions of benefits and rewards of the preceptor role: ▪ highest rank-ordered mean scores for the preceptors' perceptions of the benefits and rewards related to teaching ability, improvement in teaching skills, being recognised as a role model and gaining personal satisfaction were: 5.83(SD 0.49), 5.24(SD± 0.67), 4.95 (SD± 1.02) and 4.71(SD± 1.52), respectively. ▪ Rewards were directly associated with commitment to the role. Preceptors' perceptions of support for their role:

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					▪ support did not relate to their commitment to the role ▪ mean scores for preceptors' perception of support by: nurse educator, nurse manager and professional nurses were: 4.88(SD± 0.95), 4.54 (SD±1.12) and4.32 (SD± 1.21), respectively ▪ nursing staff understanding the goals of the preceptor role 3.95 (SD± 1.26) ▪ workload appropriateness when functioning as a preceptor 3.93 (SD± 1.52). Commitment to the preceptor role: ▪ preceptors perceived the training program as being adequate in preparing them for the preceptor role.

(Haitana & Bland 2011) New Zealand.	Qualitative descriptive study. Semi-structured audiotaped interviews. Data analysis was completed using a step-by-step process based on Burnard (1991) and informed by Glaser and Strauss (1967).	Experiences of supervising students and factors that impact on the role.	Single site Two acute inpatient wards in a small provincial New Zealand hospital that provides a wide range of secondary services.	Purposive sample of five registered nurse preceptors.	Part of precepting is developing trust through getting to know the student and building a relationship, then letting go. Barriers to developing relationship include: ▪ preceptors being intermittently rostered with the students, due to rotating shifts ▪ spending little time with the student, reducing the ability to develop trust, which placed severe constraints on a preceptor's teaching and coaching ▪ limited contact between preceptor and student nurse made it more difficult to establish a sense of trust ▪ mistrust leading to role dissatisfaction ▪ limited time with the student leading to a lack of confidence in allowing the student some degree of autonomy ▪ limited time made it difficult to assess the student's performance and caused frustration to both preceptor and student ▪ time needed to increase opportunities. Preceptor preferences were: ▪ to have the student for a longer period of time to assist relationship building, develop a sense of trust, give students autonomy and provide continuity for both parties.
(Aghamohammadi-Kalkhoran et al. 2011) Iran.	Descriptive cross-sectional design. Data	Experience of supervision role,	Multiple sites	Convenience sample of 82 participants.	Perception towards clinical supervision: ▪ 45.70% believed that working with students was pleasant

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
	was collected using validated questionnaire data analysed using SPSS.	perceptions of supervisors.	Two teaching hospitals at Ardabil University of Medical Sciences.		▪ 98.50% perceived that they should have a good relationship with nursing students ▪ 94.30% perceived that the educational system of nursing students needs to be changed ▪ 67.14% indicated that that nursing students do not acquire sufficient clinical skills ▪ 51.43% indicated that students are not sufficiently prepared for the clinical tasks.
(Walker et al. 2008) Australia.	Data were collected using semi-structured interviews. Themes were generated via critical interpretive analysis.	Supervising registered nurses' experience of their clinical supervision role.	Single site Large metropolitan teaching hospital. Nurses from the chosen health agency, RN Buddies, who expressed an interest in participating were recruited.	Convenience sample of five registered nurses who had been supervisors for pre-registration nursing students in the previous 12 months.	There were four 'points of tension': acknowledgement, experience, balance and interruption. **Acknowledgement:** Buddies felt ▪ respected, supported and recognised by the facilitators ▪ not sufficiently acknowledged by regulating bureaucracies of nursing and tertiary education. ▪ not prepared for the buddy role. **Experience:** ▪ a generational gap had a negative effect on supervising students ▪ there was a lack of consultation associated with preparation for and allocation to the buddy role. **Balance:**

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					▪ buddies struggled to maintain a balance between teaching students and providing patient care. **Interruption:** ▪ buddies were found to be effective at interrupting and challenging perceived ineffective nursing practices ▪ they allowed their own set of beliefs and practices to be interrupted and challenged.
(Madhavanpraphakaran et al. 2014) Sultan Qaboos University, Oman.	Mixed methods. Survey data were analysed using both quantitative SPSS version 16.0 software) into descriptive statistics and qualitative methods (themes identified). 30-item self-administered questionnaire and seven open-ended questions.	Experiences, barriers and enablers to clinical supervision.	Single site Hospital attached to Sultan Qaboos University.	Convenience sample of 76 preceptors, with more than 10 years' experience.	A lack of motivation, commitment and direct patient care by students. ● Need for protected time for preceptorship. ● Lack of understanding of the benefits of preceptorship with just one preceptor. Perceptions of clinical learning: ▪ 87% of preceptors rated students' response to constructive feedback positively ▪ 75% of preceptors evaluated students' professional behaviours and communication positively. Barriers to clinical supervision: ▪ 71.1% of nurses indicated that time constraints were a major concern ▪ 70% reported commitment to patient care was a priority, rather than preceptorship ▪ lack of protected time ▪ busy wards with heavy workloads ▪ demands of the working unit

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					▪ shortage of staff ▪ poor correlation of theory and practice by students ▪ lack of interest in direct patient care by nursing students ▪ a gap in communication between the student ▪ preceptor regarding shift duty changes. Enablers of clinical supervision: ▪ 68.4% of nurses reported a need for more formal preceptorship workshops ▪ 64.5% were in favour of having rewards ▪ 60.5% preferred credentials in the form of certificates ▪ 32.5% preferred monetary benefits ▪ 76% of nurses recommended having one preceptor for all assigned shifts ▪ having dedicated time to be a preceptor ▪ good communication between student and preceptor ▪ 24% of participants recommended up to one-fourth of student shifts. Themes identified from the qualitative findings were: ▪ lack of motivation, commitment and direct patient care by students ▪ need for dedicated time for preceptor program

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					▪ lack of understanding of the benefit from only one preceptor.
(Ford et al. 2016) Tasmania, Australia.	Mixed methods. Survey data were collected using open-ended questions and a self-administered questionnaire. Descriptive analysis of the data was undertaken.	Experiences, benefits of supervision to supervisors, supervisor learning needs and barriers to clinical supervision.	Multiple sites Acute care, aged care and subacute health care facilities.	Convenience sample of 932 ward registered nurses from multiple hospitals.	Meaningful learning occurs within an environment that facilitates mutual respect and shared expectations. Themes identified were: welcoming and belonging, competence and confidence and reflections on learning and support to meet learning needs. **Quantitative** ▪ Support for learning: a score of 25–40 indicated a positive score and the score was >30. ▪ Competence and confidence a score of 16–25 indicated a positive score and score was >20 ▪ Welcome and belonging: a score of 13–20 indicated a positive score, and the score was >15 **Qualitative** **Welcoming and belonging:** ▪ registered nurses acknowledged that students made a positive contribution to the functioning of the ward ▪ when information about planned student placement was provided, registered nurses reported a more positive attitude to having students on the ward, compared to when they were not informed or included in placement planning.

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					Confidence and competence: ▪ registered nurses perceived that revisiting certain skills with students in practice motivated them to gain new knowledge ▪ registered nurses consolidated and maintained their knowledge and skills to effectively support students to acquire real-life insights into the healthcare clinical environment. **Reflection on learning and support required to meet students' learning needs:** ▪ preparedness ▪ information related to student scope of practice ▪ competencies and assessment. Barriers to clinical supervision were created by: ▪ a lack of understanding of the curriculum ▪ nursing student's unawareness of their scope of practice, skill level and learning opportunities.
(Parvin et al. 2016) Iran.	Descriptive survey. Data were collected using a questionnaire and analysed using SPSS version 16.	Assessing registered nurses' attitudes towards students.	Single site Acute Hospital affiliated to the University of Medical Sciences.	Convenience sample of 180 participants.	Registered nurses' attitudes towards supervising students: ▪ 82% of registered nurses had a negative attitude ▪ 80.7% of registered nurses believed that nursing students were not able to acquire sufficient clinical experiences in practice.

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
(O'Brien et al. 2014) NSW, Australia.	Quantitative cross-sectional, survey data collected using validated Clinical Preceptor Experience Evaluation Tool. Data were analysed using SPSS version 20 into descriptive statistics.	Evaluating registered nurses' experience as preceptors to students in relation to the subscale of role, challenges, experience and satisfaction.	Multiple sites Nine acute care public rural and metropolitan hospitals that preceptor students.	Convenience sample of 337 participants.	Preceptor opinions about the clinical supervision role in relation to the following domains: ▪ role ▪ challenges ▪ experience ▪ education ▪ satisfaction. The mean scores for registered nurses' opinions in relation to the subscales of roles, challenges, experience, education and satisfaction were 5.75(SD 1.10), 4.80 (SD± 1.20), 5.31(SD± 1.18) and 5.46 (SD± 1.29), respectively. The highest score obtainable was 7 and the lowest was 0. There was no difference between age groups, areas of speciality or those who had preparation or no preparation. Preceptors with access to University facilitators scored highly on all the subscales (i.e., roles, challenges, experience and education and satisfaction).
(McCarthy & Murphy 2010) Ireland.	Data were collected using a mixed methods descriptive approach. Quantitative	Experiences, benefits, barriers and challenges to the role of clinical supervision	Multiple site A total of 124 healthcare units comprising of hospitals	Purposive sample of 470 participants.	Preceptor views of precepting: ▪ they wanted to become a preceptor ▪ they enjoyed the role. Benefits of precepting: ▪ preceptors enjoyed working with students ▪ preceptors found precepting satisfying. Challenges of precepting:

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
	data were analysed using descriptive statistical analysis (SPSS version 13.0; McCarthy & Murphy 2010) and content analysis was used to examine the qualitative data.	and the effect of support, preparation and training for the clinical supervision role.	and community care sites, acute/long-term care facilities and community or public health centres.		▪ preceptors found the role stressful and burdensome ▪ preceptors did not feel adequately supported by their clinical managers ▪ preceptors expressed the need for protected time, support, feedback and recognition from management. Role as preceptor (quantitative data): ▪ they wanted to become a preceptor (57.1%) ▪ they feel well prepared for my role (49.5%) ▪ they enjoy working with students (88.6%) ▪ they never failed a BSc student (76.9%) ▪ they find it difficult to fail a BSc student (47.2%) ▪ they feel appreciated by students (62.0%) ▪ they feel appreciated by hospital management (29.1%) ▪ they feel appreciated by university staff (37.8%) ▪ they feel supported by hospital management (33.5%) ▪ they can collaborate with link lecturers (61.6%) ▪ they can obtain support from the nurse practice development unit (48.0%) ▪ they can obtain feedback on their role as preceptor (20.8%).

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					Themes identified were (Qualitative data): Theme 1. Preceptor–role issues and Theme 2 Preceptor–student issues. Theme 1. Preceptor–role issues were discussed under three sub-themes: 1. **Preceptor preparation:** ▪ the preceptorship program was confusing and difficult beyond their comprehension ▪ the 2-day program was not enough and the half day workshop was too short to obtain an adequate knowledge and understanding of their role ▪ nurses who were selected for preceptorship roles should have a good educational background and have successfully completed a teaching and assessing course. Preceptors expressed the need for regular educational updates. **2. Impact of precepting:** ▪ the present preceptorship system could force nurses to leave the profession due to the demand of the role. **3. Support and recognition for preceptors:** ▪ preceptors expressed the need for dedicated time ▪ preceptors wanted feedback from managers and students on how they were progressing in their role, how they could improve,

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					▪ preceptors expressed the need for recognition, financial remuneration and individual and organisational support. Theme 2. Preceptor–student issues were discussed under two subheadings: time constraints and preceptor–student contact. **1. Time constraints** ▪ a lack of quality time to help students was reported as an issue emanating from busy wards, staff shortages, increased workloads, staff absences and lack of resources leading to staff often feeling overstretched with patient care activities ▪ when preceptors were not able to afford quality time for students they felt guilty and frustrated ▪ teaching and learning was provided on an ad hoc basis. **2. Preceptor–student contact** ▪ a lack of continuity in working with their allocated student to relating to different rosters and frequent staff turnover ▪ preceptors expressed concerns with assessments of students' clinical performance if they had little contact time with the student ▪ preceptors feared failing students due to a lack of support from managers

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					▪ many preceptors wanted to become a preceptor and enjoyed the role ▪ the majority of preceptors found the role stressful and burdensome and did not feel adequately supported by their clinical managers ▪ preceptors expressed the need for protected time, support, feedback and recognition from management for undertaking this role.
(Mackay et al. 2018) Australia.	Action research. The nominal group technique (Gallagher et al., 1993) evaluation process was included in the final workshops.	Training of supervisors needs of supervisors, role issues, challenges and strengths.	Multiple sites Targeted healthcare providers.	Purposive sample of 28 participants.	Learning needs for clinical supervisors: ▪ how to better understand and develop skills in reflective practice ▪ how to provide a positive learning and enabling environment ▪ how to provide effective solution-focused feedback. Clinical supervision role issues: ▪ understanding their role ▪ understanding their role in the context of the organisational culture ▪ better understanding the national competency standards for registered nurses understanding student's academic needs and 'value of reflection for self' ▪ how to create an organisational culture that proactively supports a positive learning culture.

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					Hopes, fears and expectations: ▪ fears of unknown challenges ▪ not enjoying the experience of clinical supervision and being challenged (knowledge-wise) by the nursing students for being able to meet students' expectations. Strengths: ▪ value of reflection for self improved understanding of student's academic needs' ▪ the 'value of reflective practice for students' ▪ empowering registered nurses' personal growth in skills, knowledge and confidence in being a preceptor.
(Smedley et al. 2010) Australia.	Cross-sectional survey.	Training of supervisors, benefits to supervisors, change in knowledge and skills.	Single site Registered nurses from one healthcare facility who had completed the specially designed clinical	Purposive sample of 117participants.	Change in knowledge of teaching and learning. Registered nurses gained knowledge and understanding in: ▪ teaching ▪ learning models and styles ▪ adult learning principles ▪ reflection ▪ critical thinking ▪ problem-solving. Change in generic preceptor skills. Registered nurses gained effective communication skills in: ▪ understanding how others learn

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
			supervisor program.		▪ how to assess student learning needs ▪ how to deliver logically sequenced teaching ▪ how to use student feedback to improve practice. Change in preceptor self-efficacy. There was found to be no increase or influence in: ▪ confidence ▪ role modelling ▪ the ability to include students in day-to-day nursing practice.
(Rogan 2009) Midwest Nebraska Methodist College, Omaha.	Descriptive cross-sectional survey.	Training of supervisors, content and learning needs.	Multiple sites Two mid-sized hospitals in private and academic medical centres.	Purposive sample of 77 participants.	Content areas rated essential for preceptor training were: ▪ preceptor responsibilities (94.7%) ▪ teaching how to set priorities and organise workload (93.3%) ▪ preceptor roles (90.7%) ▪ teaching critical thinking such as problem-solving and decision-making (88.0%) ▪ constructively evaluating student performance (81.3%) ▪ setting realistic goals with students (80.0%) ▪ supervising students (78.7%) ▪ assessing students' learning needs (77.3%) ▪ planning to meet initial and ongoing goals for preceptorship (73.3%) ▪ preceptor qualifications (selection criteria) (73.0%).

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
(Bengtsson & Carlson 2015) Sweden.	Qualitative approach. Interviews and written accounts from reflective journals. Data were analysed through the process of naturalistic inquiry.	Training of supervisors, content, learning needs, support and barriers. Continuous professional development (CPD) course at an advanced level.	Single site All preceptors who had completed a CPD course (n=27).	Purposive sample of 64 participants.	Vital components for preceptor preparation could be: ▪ teaching and learning strategies ▪ reflective and critical reasoning ▪ communication models ▪ the role of the preceptor ▪ preceptorship. Identified themes, categories and subheadings based on the preceptors' perspectives: **Theme 1. Tools for effective supervision** *Category 1: Knowledge about activities, and clinical teaching and learning strategies* Preceptors wanted: ▪ teaching and learning strategies ▪ concrete tools and advice ▪ adult learning principles ▪ knowledge about principles for rational assessment ▪ communication strategies to use in difficult situations. *Category 2: Knowledge and skills about reflective and critical reasoning* Preceptors wanted to learn: ▪ more about teaching and learning strategies ▪ how to help students with reflection in clinical practice

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					▪ how to help students to better self-assess themselves *Category 3: Knowledge and skills about communication models* Preceptors wanted training on: ▪ how to develop communication skills ▪ principles for communication in difficult situations ▪ strengthening self-confidence in constructive criticism. **Theme 2**: **In-depth knowledge and understanding of preceptorship in an academic setting** *Category 1: How to develop as a preceptor* Preceptors wanted: ▪ support ▪ coaching and training ▪ knowledge on implementing competence in a lifelong perspective ▪ to receive feedback on their role *Category 2. How to precept from a scientific perspective* Preceptors wanted knowledge on: ▪ teaching and learning models ▪ science and research of education. **Theme 3. The preceptors' challenges** Supervision of students presented the following challenges for preceptors:

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					▪ they felt the role was burdensome and stressful ▪ they felt they lacked concrete tools and teaching strategies ▪ they believed they lacked knowledge and understanding of their role and responsibilities as a preceptors and educators ▪ they lacked confidence in supervising challenging students, those with weak theoretical knowledge or those who would not acknowledge their own weaknesses, as well as those with vast life experience. Positives for preceptors included: ▪ developing skills and competences ▪ increased ability to give collegial support ▪ increased trust in one's abilities ▪ increased emphasis on reflection ▪ increased professional status.
(Huybrecht et al 2011) Belgium.	Validated questionnaire and semi-structured interviews. Statistical analysis limited to description of percentages.	Perceived characteristics of mentors and the consequences of mentorship.	Multiple sites Regional and university hospitals in Antwerp that receive students.	Participants were 181 mentors from seven regional and university hospitals in Antwerp that receive students.	The most important characteristics for effective clinical were: ▪ ability to give feedback (13%) ▪ experience (12%) ▪ availability of time (11%) ▪ positive attitude (11%) ▪ patience (10%). Important tasks perceived by mentors: ▪ being a trustworthy person (97%)

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
					▪ being a guide (97%) ▪ being a problem solver (95%) ▪ offering contact moments for students (95%) ▪ preparing reports (95%) ▪ making evaluations (84%). The most important benefits were: ▪ close follow-up of new developments ▪ sharing experiences ▪ increasing own knowledge. The challenges were: ▪ time constraints ▪ paperwork ▪ unrealistic views of students ▪ Conflicts between college-based thinking and daily practice. ▪ Writing reports was viewed as time-consuming
(Russell 2016) Australia.	Data collected through pre and post surveys and statistical analysis done, online reflections and interviews thematic data	To develop implement and evaluate new education program for nurses to assist development of knowledge and attitudes	Multisite metropolitan and regional areas of Western Australia	Participants were199nurses from both public and private health sector	▪ The knowledge survey : ▪ Nurses experienced significant increase in mean score from (42.5%) to (58.7%) immediately and (68.3%) after week eight post program (p value <0.001). ▪ nurses employed in the metropolitan area in a public hospital had higher knowledge ▪ Overarching theme was extending oneself and others and subthemes were ;

Study	Method of Data Collection and Analysis	Phenomena of Interest and Setting	Setting/ Context/ Culture	Participant Characteristics and Sample	Description of Main Results
	analysed according to (Braun and Clarke 2006).	to supervise students on practicum.			▪ Improved self-confidence, knowledge and enthusiasm ▪ Improved current context of nursing education ▪ Improved communication ▪ Enhanced student learning ▪ "gave me more confidence and expertise to be effective mentor(n=119) ▪ "gave me confidence and education to work with students to improve needs on role modelling and work with them"(n=17) ▪ "Feel assertive and empowered" (n=164)

2.3. Study Results and Findings

The results and findings these studies were described in the context of the review objectives.

2.3.1. Nurses' roles and responsibilities

Four studies, comprised of two quantitative, one mixed method and one qualitative, reported on the nurses' roles and responsibilities relating to supervising students during clinical placement (Huybrecht et al. 2011; Jokelainen et al. 2013; O'Brien et al. 2014; Omer et al. 2016). The clinical supervision roles perceived as important included: protector, educator, facilitator or guide, evaluator, support person, problem solver and student confidante (Huybrecht et al. 2011; Jokelainen et al. 2013; O'Brien et al. 2014; Omer et al. 2016).

2.3.1.1. Protector

Nurses stated that their role as a protector was the most important and that they performed this role more frequently compared to other roles (Omer et al. 2016). This role included nine responsibilities relating to the safety of both patients and students (Omer et al. 2016). Nurses indicated that they had to consider policies and procedures when delegating duties to the students to ensure that students adhered to policies and procedure guidelines. This protected both the students and nurses from errors that could threaten themselves or others (Omer et al. 2016). Overall, the protector role was also viewed as protecting the profession of nursing as the most trusted of healthcare professionals (Omer et al. 2016).

2.3.1.2. Educator

The nurses also considered the role of educator to be important in the clinical supervision of students (Huybrecht et al. 2011; Omer et al. 2016). This role involved the collaborative responsibilities of planning learning activities, implementing the learning plan and constructively critiquing knowledge (O'Brien et al. 2014; Omer et al. 2016). The nurses highlighted the importance of role modelling, using case studies and care plans to assist students to make links between theory and practice (Huybrecht et al. 2011; O'Brien et al. 2014; Omer et al. 2016) .They indicated that this role involved

promoting students' active participation in patient care provision, analysing clinical problems and critically reflecting on clinical problems (O'Brien et al. 2014; Omer et al. 2016).

2.3.1.3. Facilitator or guide

The role of facilitator or guide was also considered important by nurses (Huybrecht et al. 2011; Jokelainen et al. 2013; Omer et al. 2016). In one study (Jokelainen et al. 2013), nurses supervising students indicated that facilitation should take a human approach that involved four major categories: student in focus, placement fit for purpose, co-working and spurring and ongoing assessment of achievements. 'Student in focus' meant supervisors needed to develop a positive relationship with the students and 'placement fit for purpose' meant creating a supportive environment (Jokelainen et al. 2013). 'Co-working and spurring, focused on collaborative working and encouragement, while ongoing assessment of achievements' involved evaluation and timely constructive feedback (Jokelainen et al. 2013).

Further, nurses indicated that the facilitator role corresponded with the facilitator responsibilities of resolving conflict issues if they arose and helping students to deal with mistakes constructively (Huybrecht et al. 2011; Omer et al. 2016). It was also indicated that in the facilitator role, nurses had the responsibility of discussing students' performance issues with the course coordinator and customising clinical coaching plans to suit the students' clinical learning needs (Jokelainen et al. 2013; Omer et al. 2016).

2.3.1.4. Evaluator

Another important role documented in literature was the evaluator. The evaluator role involved providing feedback, preparing reports, making evaluations for student performance and communicating student progression to both the student and their course coordinator (Huybrecht et al. 2011; Jokelainen et al. 2013; O'Brien et al. 2014; Omer et al. 2016). Nurses indicated that they frequently performed the evaluator role (Omer et al. 2016); however, they perceived this role as the least important (Huybrecht et al. 2011; Omer et al. 2016). In one study, 13% of nurses reported the ability to give feedback was an important element of clinical supervision, although they were unwilling to give comments in writing (Huybrecht et al. 2011).

2.3.2. Other roles

The nurses also reported that they performed other important roles such as support person and problem solver.

2.3.2.1. Support person

As the students' support person, nurses perceived that they were responsible for ensuring students were treated fairly and with respect to facilitate learning in practice (Huybrecht et al. 2011; O'Brien et al. 2014). The supportive role was also reported to include offering contact moments for the student and supporting clinical skills development, while ensuring safe practice (Huybrecht et al. 2011; O'Brien et al. 2014). In two studies, nurses reported that they wished to spend sufficient time with students to provide instruction, support and be available to answer students' questions; however, 54% reported that they could not put this into practice (Huybrecht et al. 2011; O'Brien et al. 2014; Omer et al. 2016). Instead, students voiced frustration because supervisors were not available (Omer et al. 2016).

It is also documented that 95% of nurses perceived that being a problem solver was an important role in clinical supervision (Huybrecht et al. 2011). The role involved conflict resolution, dealing with students with difficult behaviours and effectively guiding students' patient care performance including dealing with mistakes (Huybrecht et al. 2011; O'Brien et al. 2014). Hence, nurses were expected to act as the students' confidante to effectively facilitate clinical learning (Huybrecht et al. 2011; O'Brien et al. 2014).

2.3.3 Benefits for bedside nurses

Four studies, comprising of two mixed methods and two quantitative (McCarthy & Murphy 2010; Smedley et al. 2010; Cloete & Jeggels 2014; Ford et al. 2016) explored the nurses' perception of the benefit of their clinical supervision role. Nurses indicated that supervising students enhanced their knowledge of teaching and learning and kept them up-to-date with clinical generic knowledge and skills (Smedley et al. 2010; Ford et al. 2016)**.** These generic skills included effective communication skills, thinking logically, understanding how others learn, understanding students and their learning

needs assessment process, use of feedback, as well as understanding their own abilities such as confidence and role modelling (Smedley et al. 2010; Cloete & Jeggels 2014).

Further, nurses perceived supervising students as a 'constant process of learning' to improve their competencies to demonstrate skills and increase confidence in their role to support students, especially when students asked questions constructed in various ways' (Ford et al. 2016, p.100). Nurses acknowledged that supervising students improved their communication skills. They also perceived supervising students as providing personal satisfaction and self-enrichment by contributing to the future generation (Cloete & Jeggels 2014). However, this was dependent on the recognition and support the nurses received from their managers and colleagues. In one study, a significant correlation between benefits and rewards and commitment to the role (r=0.54, p-0.001, n=98) was identified (Cloete & Jeggels 2014). However, it is unknown whether nurses in hospital settings perceived themselves as having the appropriate knowledge or skills for the role, as only one study examined this aspect (Ford et al. 2016).

In this mixed method study by Ford (2016), meaningful learning was said to occur within an environment that facilitates mutual respect and shared expectations. Quantitative data indicated that nurses had high levels of satisfaction with clinical supervision of students. The scores were positive for all three themes as follows: welcome and belonging (>15), competence and confidence (>20), reflections on learning and support (>35) (Ford et al. 2016). In addition, the analyses of qualitative data provided in-depth understanding of nurses' experiences of clinical. In regards to welcoming and belonging, nurses expressed satisfaction and acknowledged the contribution students make to their units and appreciated receipt of information about planned students' placement. They acknowledged that being informed promoted a more positive attitude towards students. However, they were disappointed if they were not informed in a timely manner or involved in placement planning (Ford et al. 2016).

Pertaining to competence and confidence-self-reflection, nurses highlighted that supervising students was a constant learning process which increased their knowledge, consolidated their skills and competence (Ford et al. 2016). It was seen as a motivator to keep up-to-date with clinical knowledge and skills. As a result, having students increased their competence, confidence and self-reflection and subsequently enhanced their own professional development (Ford et al. 2016). On the element support required

to meet learning needs nurses expressed that preparedness and knowledge of students' scope of practice was pivotal to creating a supportive learning environment and determining the quality of clinical experience for both parties. Lack of understanding of students' curriculum, learning objectives, competencies and assessments and were highlighted as a significant barrier to clinical supervision (Ford et al. 2016).

2.3.3.1 Benefits of training

Two quantitative studies (Smedley et al. 2010; Russell et al. 2016) explored nurses' perceptions of their knowledge and skill level after the completion of a designed clinical supervision program. Nurses reported significant improvement in their knowledge of teaching, understanding of adult learning principles, models and styles, as well as improvement of their core clinical supervision skills and 'Increased my ability to supervise students and taught me things that I had not thought about before' (Russell et al. 2010, p.12).

The core clinical supervision skills included: effective communication, thinking logically, reflection, understanding how others learn, understanding students and their learning needs, assessment processes, problem-solving, use of student feedback, as well as understanding own ability such as confidence to take up the role and role modelling (Smedley et al. 2010). Nurses also reported that they gained better understanding of teaching students, more confidence and expertise to work with students and they felt empowered to take action: 'Gave me more confidence and expertise to be an effective supervisor for student' (Russell et al. 2016, p.12). Overall, the results indicated that clinical supervision training was pivotal to effective clinical supervision. Nurses acknowledged that most of their colleagues were not specifically or formally trained for the role and recommended that it would be invaluable for all nurses who supervise students to have the opportunity to obtain this training (Smedley et al. 2010).

2.3.4 Barriers and challenges encountered

Eight studies, including four mixed methods, two qualitative and two quantitative explored barriers and challenges associated with the effective supervision of students in practice (Walker et al. 2008; McCarthy & Murphy 2010; Aghamohammadi-Kalkhoran et al. 2011; Haitana & Bland 2011; Huybrecht et al. 2011; Madhavanpraphakaran et al.

2014; Ford et al. 2016; Parvin et al. 2016). The drawbacks perceived by the nurses were time constraints related to the clinical environment, staff issues and student issues (McCarthy & Murphy 2010; Aghamohammadi-Kalkhoran et al. 2011; Haitana & Bland 2011; Huybrecht et al. 2011; O'Brien et al. 2014; Ford et al. 2016).

2.3.2.1. Time constraints

While nurses acknowledge that clinical supervision required them to focus on the students achieving their learning objectives; they identified time constraints as a major drawback (McCarthy & Murphy 2010; Haitana & Bland 2011; Madhavanpraphakaran et al. 2014; Ford et al. 2016; Parvin et al. 2016). They reported that supervising students was time-consuming and disruptive to their daily routine, especially when dealing with unmotivated students (O'Brien et al. 2014). Nurses reported that students slowed them down and took away time for patient care (Madhavanpraphakaran et al. 2014; O'Brien et al. 2014). In one study, 70% of nurses reported that patient care was a priority rather than supervising students (Madhavanpraphakaran et al. 2014). Nurses reported difficulties with affording quality time to students and clinical teaching was provided on an ad hoc basis (McCarthy & Murphy 2010). They reported that a lack of dedicated time was a major factor that interfered with clinical supervision (McCarthy & Murphy 2010; Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014) and indicated that they needed additional and protected time for supervising students (Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014). Time constraints were attributed to clinical workload and other clinical demands.

2.3.4.2. Clinical environment

Nurses reported that the demands of the dynamic working unit, a heavy workload, staff shortage, high staff turnover, the adverse effects of team work, a poor skill mix, lack of interest or commitment to the role and shift work were significant barriers that made it difficult to pay adequate attention to student supervision (Walker et al. 2008; Haitana & Bland 2011; Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014). The nurses in the study by Walker et al. (2008) reported that due to excessive demands in the clinical environment they found it difficult to balance between supervising the students, providing patient care and fulfilling other activities within the clinical environment. Similar findings were reported in two more recent studies (Aghamohammadi-Kalkhoran

et al. 2011; Parvin et al. 2015) that utilised the Stagg's questionnaire (1992). The majority of the nurses from these studies indicated that other competing demands took priority over students' clinical supervision. They indicated that the allocation of workload did not consider that they were supervising students (McCarthy & Murphy 2010). Some nurses indicated that they preferred students to be supervised by the university-employed facilitators since they were paid to do the role (Aghamohammadi-Kalkhoran et al. 2011; Madhavanpraphakaran et al. 2014).

2.3.2.3. Lack of continuity due to rostering

Shift work or rotating rosters in which nurses and students work on different shifts were identified as significant barriers (McCarthy & Murphy 2010; Haitana & Bland 2011). Bedside nurses are expected to work different shifts throughout the week, while students work their one allocated shift throughout their clinical placement. As a result, the student has to work with whichever nurse is on duty during their allocated placement. Consequently, this was found to create a break in the continuity of the supervision process making it difficult to develop and build trusting relationships with students (Haitana & Bland 2011; Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014).

The nurses expressed concern with evaluating students' performance, due to interrupted contact with the students (Haitana & Bland 2011; Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014). In one study (Haitana & Bland 2011), nurses expressed that spending little time with the student and working with them intermittently placed severe constraints on the nurses' role as educator and facilitator. They also highlighted that rosters affected their ability to evaluate the effectiveness of their own clinical supervision ability (Haitana & Bland 2011).

Qualitative and mixed methods studies have indicated a student being supervised by multiple nurses is a significant barrier to their learning. Nurses recommended that students should have one nurse as their supervisor for all their assigned shifts throughout their placement period (Haitana & Bland 2011; Madhavanpraphakaran et al. 2014). Nurses indicated that one-to-one relationship provided students more opportunity for learning and continuity; thus, increasing satisfaction for both parties (Haitana & Bland 2011).

2.3.4.4. Unpreparedness

Nurses also reported that unpreparedness was a significant issue that affected developing a supportive learning environment (Walker et al. 2008; Ford et al. 2016). They reported a lack of understanding of the curriculum including the students' scope of practice: 'It would help to have clear guidelines of what tasks to focus on during the placement' (Ford et al. 2016, p.101). Nurses acknowledged that they were not aware of the students' skill level, competencies or assessment and reported these as the most critical barriers (McCarthy & Murphy 2010; Ford et al. 2016). In one study, a nurse expressed: 'I enjoy working with students, but this new program is very beyond my capabilities' (McCarthy & Murphy 2010, p. 240). Further, a lack of consultation associated with preparation for, and allocation to, the supervisor role was identified as a factor that influenced a tense relationship between nurses and students. For instance, a nurse expressed that: 'No one says anything … it would be just a name next to yours' (Walker et al. 2008, p. 764, 'There was no preparation to be a buddy, I am not aware of any kind of policy relating to supervising students' (Walker et al. 2008, p. 763).

2.3.4.5. Student-related issues

In addition, clinical supervision tasks and issues such as paperwork, writing reports, conflicts between students and nurses, unrealistic views of students and conflicts between education institution-based thinking and daily practice were indicated as challenges that contributed to time constraints (Huybrecht et al. 2011; Parvin et al. 2016). Nurses indicated that student-related issues including: a lack of motivation, commitment, acceptance of advice, ability to define their goals, identify their strengths, poor correlation of theory to practice and a lack of interest in direct patient care by students were significant barriers to clinical supervision (Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014; Ford et al. 2016). The nurses reported that 'students are not self-directed; they do not look for learning opportunities and would rather chat among themselves' (Ford et al. 2016, p.101).

2.3.4.6. Other points of tension

Other points of tension identified were 'acknowledgement', 'experience', 'balance and interruption' and 'lack of professional recognition' (Walker et al. 2008, p.762). Nurses

identified that they lacked support and recognition and were not sufficiently acknowledged by the bureaucracies of nursing and academics (Walker et al. 2008; McCarthy & Murphy 2010; Madhavanpraphakaran et al. 2014; O'Brien et al. 2014). Some nurses preferred acknowledgement in the form of credentials, such as receiving certificates or financial remuneration, while others preferred both (McCarthy & Murphy 2010; Madhavanpraphakaran et al. 2014). Experience (i.e., the generational gap between experienced supervising nurses and students) was identified as a barrier (Walker et al. 2008). Tension was reported between the older and younger and experienced nurses and students. For instance, nurses expressed a negative attitude towards students: 'You work with people who obviously have to do because they're told to do it and it's awful, find most of them [students] very lazy' (Walker et al. 2008, p. 763). This negative attitude was reported as another significant barrier to effective clinical learning (Walker et al. 2008; Ford et al. 2016). In addition, their personal and professional attributes were also identified as significant challenges in supervising pre-registration nursing students in practice (Huybrecht et al. 2011).

2.3.5. Nurses' clinical supervision learning needs

Five studies investigated nurses' clinical supervision learning needs by surveying the nurses that had completed a clinical supervision training program (Rogan 2009; Smedley et al. 2010; Bengtsson & Carlson 2015; Russell et al. 2016; Mackay et al. 2018). The nurses indicated that they wanted in-depth knowledge and understanding of clinical supervision strategies (Bengtsson & Carlson 2015). Clinical supervision was considered stressful, so the nurses indicated that they wanted practical tools, core skills and teaching strategies to gain confidence to undertake the clinical supervision role assertively and be able to supervise even the most challenging students (Smedley et al. 2010; Bengtsson & Carlson 2015; Russell et al. 2016). The core skills identified included: understanding adult learning principles, reflective and critical reasoning, and communication skills and understanding how to best practice their role as clinical supervisors for students (Bengtsson & Carlson 2015).

2.3.5.1. Understanding adult learning principles

Nurses reported understanding adult learning principles as an essential learning need for them to be able to effectively perform the clinical supervision role (Bengtsson &

Carlson 2015). They reported that they needed to learn about how to best practice clinical supervision in an inter-professional group in which they supervise students in the context of a multidisciplinary health setting (Bengtsson & Carlson 2015). They also wanted knowledge on how others learn, how students learn and students' learning needs (Bengtsson & Carlson 2015). In addition, nurses also wanted to learn teaching and learning models, learning styles, reflective practice, critical thinking and problem-solving strategies (Rogan 2009; Smedley et al. 2010; Mackay et al. 2018). Nurses indicated that they wanted to learn more about teaching strategies and learning models, so they would be able to use science and research in their role of clinical supervision (Smedley et al. 2010; Bengtsson & Carlson 2015).

2.3.5.2. Reflective and critical reasoning

Nurses indicated that they wanted to learn more about reflective and critical reasoning to be able to facilitate student reflection on patient care in different contexts and settings (Smedley et al. 2010; Bengtsson & Carlson 2015; Mackay et al. 2018). They perceived that teaching critical thinking; problem-solving and decision-making were also essential to their preparation as supervisors (Rogan 2009; Smedley et al. 2010). Further, nurses wanted knowledge on self-assessment, so that they would be able assist students to critique and realistically analyse their own performance (Bengtsson & Carlson 2015). They also wanted knowledge about the assessment process and rational assessment principles to evaluate students' performance in an objective, respectable and fair manner (Smedley et al. 2010; Bengtsson & Carlson 2015).

2.3.5.3. Communication skills

Nurses reported that communication was one of the core skills they wanted to learn to supervise and effectively facilitate student learning in practice (Smedley et al. 2010, Bengtsson & Carlson 2015).They wanted to learn about communication principles and skills to be able to actively encourage students to engage in critical dialogue (Smedley et al. 2010; Bengtsson & Carlson 2015). Nurses reported that they wanted knowledge on methods on how to manage problematic discussions (Smedley et al. 2010, Bengtsson & Carlson 2015). Additionally, nurses wanted to learn how to think logically, how to provide effective solution-focused feedback, how to keep conversations focused and structured and how to give and receive constructive criticism without affecting the

students' confidence (Smedley et al. 2010; Bengtsson & Carlson 2015; Mackay et al. 2018).

2.3.5.4. Other learning needs

The other learning needs identified were how to provide a positive learning and enabling environment that facilitated student clinical learning in practice (Mackay et al. 2018). The nurses also indicated that they needed to understand their role in the context of their organisational culture and understand the national competency standards for nurses and the new nursing competencies assessment schedule (NCAS) tool used to assess student across Australia (Mackay et al. 2018).

Other essential content areas for preparing nurses for the clinical supervision role included: learning the supervisor role and its responsibilities (n=73; 94.7%), teaching how to set priorities and organise workload (n= 72; 93%) and setting realistic goals with the students (n=61; 80%) Rogan 2009). Nevertheless, nurses reported that supervising students increased individuals' knowledge and clinical skills in practice (Ford et al. 2016). Revisiting skills with students was perceived as an opportunity to gain new knowledge, consolidate and maintain their existing knowledge and skills (Ford et al. 2016). However, this evidence is from one study, there is a paucity of literature regarding the nurses' perception of their own knowledge and skills from their own perspective. Therefore, it is the aim of this study to further investigate the nurses' perceptions of their knowledge and skills regarding clinical supervision of students.

2.4. Discussion of Findings

Both international and local literature around nurses' experiences of clinical supervision focused on five main areas: 1) nurses' roles and responsibilities during clinical supervision (Bennett & McGowan 2014; Madhavanpraphakaran et al. 2014; O'Brien et al. 2014; Omer et al. 2016), 2) the benefits of undertaking the role of clinical supervision (Smedley et al. 2010; Russell et al. 2016), 3) the benefits of clinical supervision training (Smedley et al. 2010; Russell et al. 2016), 4) the barriers and challenges to clinical supervision (Walker et al. 2008; McCarthy & Murphy 2010; Aghamohammadi-Kalkhoran et al. 2011; Haitana & Bland 2011; Madhavanpraphakaran et al. 2014; Ford et al. 2016; Parvin et al. 2016) and 5) nurses' clinical supervision learning needs (Rogan

2009; Smedley et al. 2010; Bengtsson & Carlson 2015; Russell et al. 2016; Mackay et al. 2018). This scoping review has synthesised how nurses' perceive their experience of supervising students during clinical placement in hospital settings. It has demonstrated that nurses are aware of their roles and responsibilities, but there is a hierarchical perception of these roles related to their importance and frequency of attendance (Omer et al. 2016). The roles and responsibilities as protector, educator, facilitator, evaluator, problem solver and support person for the students were all considered important (Huybrecht et al. 2011; Jokelainen et al. 2013; O'Brien et al. 2014; Omer et al. 2016).

However, the protector role was considered the most important mainly protecting students from making errors that could harm patients (O'Brien et al. 2014; Omer et al. 2016). This finding resonates with the AMNAC nurses' standards of practice that stipulate that nurses have a duty of care to ensure patient safety at all times (ANMAC 2012). Therefore, they feel accountable for the actions of the students under their supervision. Consequently, due to this need for safety, the review indicated that nurses found it difficult to trust students and to allow them the autonomy to perfom nursing care activities on their own (McCarthy & Murphy 2010). Consequently, this limitation was recognised as creating missed learning opportunities for students (Haitana & Bland 2011).

Further, the review affirmed that effective execution of roles such as educator, facilitator, support person, problem solver and evaluator was significantly important in facilitating clinical learning. The most important factor identified was having a student focus, allowing students to actively participate in patient care, supporting students to link theory to practice and involve them in their own evaluations as they learned the reality of nursing skills (O'Brien et al. 2014; Omer et al. 2016). However, these roles were infrequently attended (Omer et al. 2016). Further, these roles were considered to belong to the university-employed facilitators as they were paid to do it (Jokelainen et al. 2013; Madhavanpraphakaran et al. 2014; O'Brien et al. 2014). This scoping review also identified that most nurses were not willing to evaluate students and the process of writing reports was identified as time-consuming, taking them away from their patients (Jokelainen et al. 2013; O'Brien et al. 2014; Omer et al. 2016).

This review revealed numerous barriers and challenges experienced worldwide by nurses when supervising students (Walker et al. 2008; McCarthy & Murphy 2010;

Aghamohammadi-Kalkhoran et al. 2011; Haitana & Bland 2011; Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014; Ford et al. 2016; Parvin et al. 2016). While time was perceived as the most significant barrier, it was not a stand-alone issue. The review confirmed that heavy workload, a lack of support from managers and colleagues, staff shortages and high staff turnover were significant factors that are associated with ineffective clinical supervision (McCarthy & Murphy 2010; Aghamohammadi-Kalkhoran et al. 2011; Parvin et al. 2016).

It was apparent in the literature that nurses gave priority to their primary role of patient care and the demands of the clinical environment rather than student supervision (Walker et al. 2008; Haitana & Bland 2011; Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014). Consequently, maintaining a balance between supervising students and the provision of patient care was found to be difficult (Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014). The studies included in this review emphasied the need for protected time for clinical supervision (McCarthy & Murphy 2010; Haitana & Bland 2011; Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014). This review also found out that supervision of students was on ad hoc basis due to the rotating roster system of nurses that, consequently, reduced their contact time with students (McCarthy & Murphy 2010). It was also evident in the review that nurses were not aware of the student curriculum or what the student could and could not do, hence, creating conflict between students and their supervising nurse. The students were viewed as umotivated, while the nurses were considered unprepared for the role (Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014; Ford et al. 2016).

Consistent with previous literature, the review also found out that nurses lacked the preparation to take up the role of supervising students (Omansky 2010; Mather et al. 2015). Any nurse on duty at the time could be assigned to supervise the students. This was based on a misled assumption that nurses working at the bedside had the ability to effectively teach and supervise students, as they had the experience and expertise and were licenced professionals themselves (Chuan & Barnett 2012).

Another significant finding from this review was that, generally, the nurses who predominantly worked with students at the bedside and provided direct one-to-one supervision on a day-to-day basis were not necessarily trained for the role (Omansky 2010; Mather et al. 2015). It was clear from this review that clinical supervision training

was not a requisite to supervising students in practice (ANMAC 2016; NCSBN 2016). Moreover, given higher student enrolments and increased demand for clinical placements, there was not enough time to train all potential clinical supervisors—nurses who work with students at the bedside in hospital settings (Fairbrother et al. 2016).

Conversely, another significant finding of this literature review was that training enhanced nurses' ability to supervise students (Smedley et al. 2010; Russell et al. 2016). Nurses reported significant improvement in their knowledge of teaching, understanding of adult learning principles, effective communication, thinking logically, reflection, understanding how others learn, understanding students and their learning needs, assessment processes, problem-solving, use of student feedback, as well as understanding own ability such as confidence and felt empowered to undertake the role of supervising students (Smedley et al. 2010; Russell et al. 2016).

Further, the review identified that nurses' wanted to learn core skills for supervision such as adult learning principles, communication skills, how to think logically, how to provide effective solution-focused feedback, reflective and critical reasoning (Rogan 2009; Smedley et al. 2010; Carlson & Bengtsson 2015; Mackay et al. 2018). This is consistent with existing literature that clinical expertise does not automatically translate to being an effective clinical supervisor (Brammer 2008; HWA 2010). Implied from this finding is nurses' acknowledgement of their lack of preparation for the role. It is not clear in literature whether the registered nurses working with students on a daily basis at the patient's bedside perceive themselves as having the appropriate knowledge and skills for clinical supervision. Therefore, this was the focus of this study.

2.4.1. Implications for clinical practice, research and education

There is a general consensus in literature that nurses have a responsibility to supervise students. However, there is minimal evidence in literature to demonstrate that nurses working with students at the point of care have the appropriate knowledge and skills for the role. Based on the findings from this review, there is a need for further research to explore the perceptions of nurses regarding their knowledge and skills towards supervising students. Given the high numbers of students requiring clinical placement, it is obvious that every nurse has a high probability of being assigned a student at any time during their shift. Therefore, it is important that nurses working at the bedside are well

prepared for the role. Further research may provide some insight into issues that affect registered nurses' role of clinical supervision and students' clinical placement experience.

Findings from this review may be used by both health service providers and universities to develop collaborative strategies and clinical supervision training programs that may mitigate the barriers and resolve the challenges facing effective clinical supervision. Additionally, these findings can be used to inform curriculum development for nursing education and to prepare students for their clinical placement.

Limited studies have addressed nurses' perspectives of their knowledge and skills towards supervision of students in hospital settings. Therefore, further research is required to investigate this domain. It is the intention of this study to investigate nurses' perceptions of their knowledge and skills towards supervision of students during clinical placement in hospital settings.

2.4.2. Potential limitations

Although there were significant findings from this scoping review, there were also some limitations. First, despite worldwide consensus that clinical supervision is important to prepare the next generation of nurses with appropriate clinical skills, there has been limited research on the knowledge and skills of the supervising nurses working with students at the bedside. Only 16 studies were deemed relevant for the review. Second, the use of various terminologies from both local and international studies causes confusion in literature. Terms such as mentor, preceptor, buddy nurse, supervisor or staff nurse were often used interchangeably and may not necessary refer to the nurse working alongside students at the bedside on day-to-day basis. Often the term used would be dependent on the country in which the study was conducted. The same term could possibly refer to a different kind of clinical supervisor in a different setting or country. Hence, extreme caution was required while reading the literature. The focus of this review was on the experiences of the nurses whose primary role was patient care and who were assigned to work with students during a shift as an additional role.

The third limitation was that most studies used single sites and those from multiple sites had low response rate that affected the ability to generalise the results (DePoy & Gitlin

2011). Most studies in the review used either a convenient or purposeful sampling technique, running the risk of selection bias that would affect the reliability of the results (Polit & Beck 2012). However, most of the studies used validated tools to collect the data. Another limitation was that some studies used self-selection of participants with no data on those nurses who chose not to participate. None of these studies stated how they calculated the sample size. There was no mention of statistician involvement.

2.4.3. Summary

This chapter discussed the literature related to the role of bedside nurses in regard to student's clinical supervision, the attributes required for effective clinical supervision and preparation of nurses for the role of clinical supervision. Second, the chapter presented the scoping review related to nurses' experiences of working with students at the bedside during clinical placement in hospital settings. The chapter explained the search strategy. A worldwide view was extrapolated from relevant studies from a range of countries and five aspects guided the discussion. Similarities, differences and gaps in literature were explored. Nurses' roles, responsibilities of clinical supervision and issues that influenced the effectiveness of clinical supervision of students in practice were identified. The gap within the literature was identified which included the paucity of data relating to nurses' perspectives of their knowledge, skills and experiences of supervising students in practice. This gap guided the researcher to the research question and research methodology to investigate the nurses' knowledge and skills towards clinical supervision of students in hospital settings. The methodology will be described in Chapter 3.

Chapter 3. Methodology

3.1. Introduction

This chapter describes the methodology used for the study to investigate nurses' perceptions of their knowledge and skills regarding the clinical supervision of students during clinical placement in metropolitan public hospital settings in NSW. It discusses the rationale for choosing the cross-sectional descriptive design as the most appropriate design for this study. Further, the chapter describes the methods and techniques used to conduct the study including: the study population, recruitment process, sampling technique, and data collection method and data analysis procedures. Ethical considerations are also discussed in this chapter.

3.1.1. Research paradigm

The first priority in research is to choose the appropriate approach that underpins the research study (Houghton et al. 2012). This study was concerned with the numerical data from predetermined research questions and design; therefore, the quantitative approach was chosen. Since the researcher was seeking quantifiable factual evidence and not insight, meaning or awareness, the quantitative approach was the most appropriate method to use to answer the research question:

What are the nurses' perceptions of their knowledge and skills towards supervising students during clinical placement in hospital settings?

Therefore, in seeking the methodology that would provide factual data quantitative methodologies were explored leading to the choice of the descriptive cross-sectional survey.

3.1.2. Research design

The descriptive cross-sectional survey design was used in this study to investigate the nurses' perceptions of their knowledge and skills, towards supervising students on clinical placement. The survey method was preferred, as it is considered the most appropriate for establishing associations, trends and links between variables (Polit & Beck 2012; Fain 2013).

Various data collection methods for undertaking the survey have been reported, such as web-based, online and paper-based. For this study, the paper-based method of data collection was used. The paper-based method was convenient for the participants in terms of saving time, as time constraint has been reported as a major issue in practice (Aghamohammadi-Kalkhoran et al. 2011; Huybrecht et al. 2011; Vinales 2015b).

Questionnaires were distributed during in-services to avoid participants using their own time or directing participants to a computer link. The advantage of using this method was an increased response rate (Fain 2013). In addition, the paper-based method allowed the researcher to include all nurses even those who had no access to the internet, since most of the nurses working at the bedside did not have access to the internet at work. It was also easier to for me as a novice researcher to put the questionnaire on paper compared to developing an electronic survey. In addition, tracking and accounting for all the questionnaires distributed and number of respondents was easier using a paper-based survey.

3.1.3. Settings and participants

The study was conducted at a metropolitan tertiary referral and teaching hospital in NSW. The hospital has a 454-bed capacity and employs 536.14 full-time equivalent (FTE) nurses working in various specialities including emergency, surgical, medical, critical care, paediatrics, aged care, rehabilitation, ambulatory care and renal dialysis. The site was chosen, as it offers clinical placement for students from various universities in NSW. The number of students offered clinical placement at this hospital each year range from 765 to 1,005 see Figure 3. Hence, nurses at this hospital are assigned responsibility to supervise students on a regular basis.

3.1.3.1. Inclusion criteria

The inclusion criteria used to recruit participants were:

- all nurses whose primary role was direct bedside patient care
- nurses who worked on a permanent full-time or part-time basis

3.1.3.2. Exclusion criteria

The exclusion criteria for this study were:

- nurse unit managers (NUM), because they do not work alongside students and their role is primarily management
- clinical nurse consultants (CNC), nurse educators (NE) and clinical nurse educators (CNE), because their primary role is staff education, not direct patient care and they do not take patient load
- any nurse not on a permanent contract, because their practice in each ward is inconsistent and their chance of being allocated to work with a student is minimal (Polit & Beck 2012)
- nurses who work permanent night shifts, as student nurses are not allocated clinical placement on night shifts
- enrolled nurses and assistants in nursing, because they are not eligible to supervise students (ANMAC 2012)
- university facilitators, because they are not employed by the clinical facility and do not participate in clinical practice.

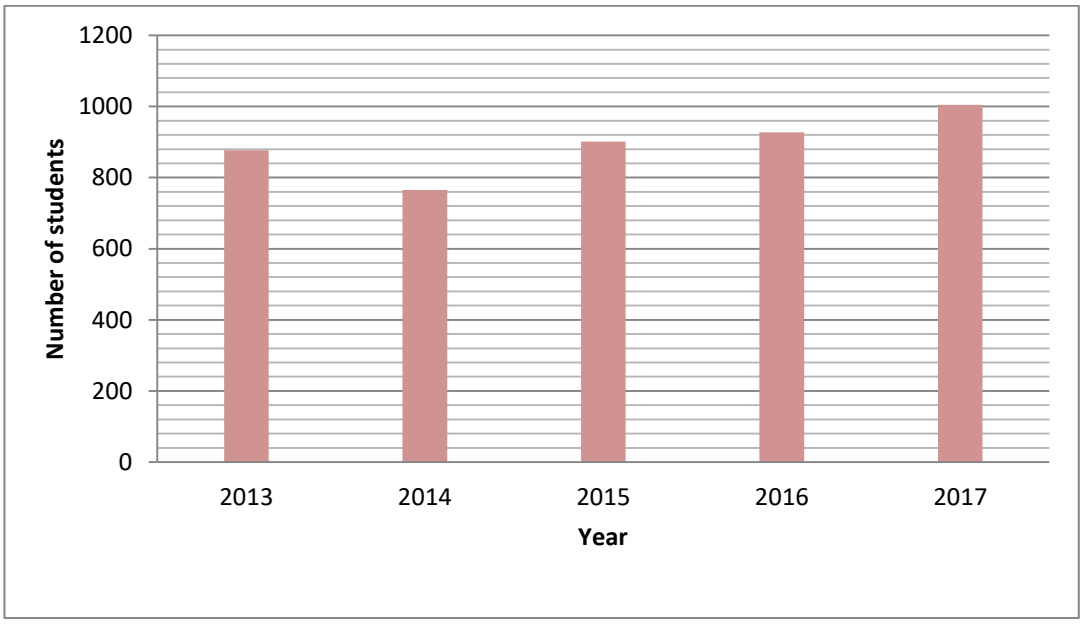

Figure 4. Students offered clinical placement at the site per year.

3.1.4. Population and sampling technique

The target population was 536 nurses who were employed at the hospital at the time of data collection. Random sampling would have been the preferred sampling technique because it is deemed more precise; however, it was not practical for this study due to cost, time and resources (Fink 2015; Polit & Beck 2012). The sampling frame consisted

of 400 nurses who were rostered to work during the period 15 December 2016 to 15 January 2017. Therefore, a non-probability sampling of convenience was considered the most applicable approach, as it was affordable and easy; the participants were readily available and accessible on the monthly roster at my workplace. The main disadvantage of the convenience sampling technique is selection bias that may lead to poor representation of the population thereby limiting the ability to generalise the results (Etikan et al. 2016). However, targeting the population that met the inclusion criteria helped to enhance the external validity of the study findings (Glasgow et al. 2018).

3.1.5. Procedures

3.1.5.1. Recruitment strategy

Figure 4 depicts the recruitment and selection of participants.

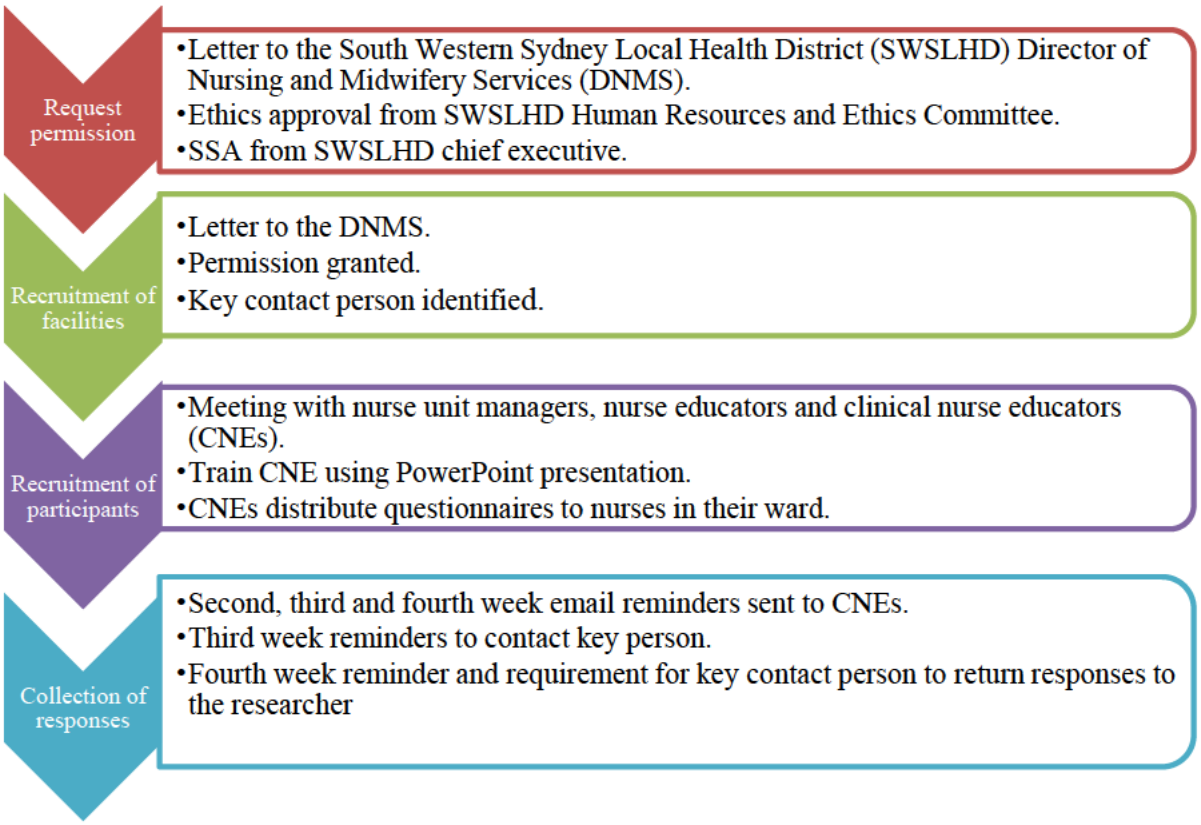

Figure5. Recruitment and selection of participants.

The recruitment process was developed in line with the study's aim and consideration of ethical requirements for conducting human research in the clinical setting. Prior to recruitment, ethical approval from South Western Sydney Local Health District Human

Research and Ethics Committee (SWSLHD HREC) and site-specific authorisation from the chief executive of SWSLHD were granted. Lastly, permission from the Director of Nursing and Midwifery Services (DNMS) was also granted and then data for the study were collected.

The DNMS allowed the researcher to hold the meeting with the clinical leadership team, which included NUMs, NEs and CNEs. The invited NUMs, NEs and CNEs attended the debriefing meeting in which the aims, objectives and purpose of the study were explained. The NUMs, NEs and CNEs were informed of the roles they would play during the process of data collection. Their roles included distributing the participant packages to the nurses within their wards, keeping the drop-boxes secure and physically bringing the drop-boxes to the researcher by the end of the fourth week. CNEs were identified as key contact persons during data collection.

3.1.5.2. Education for CNEs

First, the researcher attended the CNE meeting during which the purpose of the study was explained and the CNEs were instructed on how to administer the questionnaire. After the education meeting, all CNEs were sent the education material via email to ensure consistency in presenting the study protocol to the nurses in the wards during in-service.

The CNEs were also provided with the participant packages that included the participant information sheet (PIS), questionnaires and a return envelope addressed to the researcher. The CNEs were coached on how to explain the purpose of the study and articulate the ethical consideration to the participants to ensure that all the participants knew that participation was voluntary. In the same meeting, every CNE was given survey packages equivalent to the number of nurses in their ward. The CNEs were also given sealed drop-boxes for storing the responses.

The PIS, questionnaire and the self-addressed envelope were included within each survey package distributed to each participant. Tacit consent was obtained from the participants. Anonymity was guaranteed, as personal identification was not requested nor could any questionnaires be linked back to the individual participant. With the NUMs' permission, CNEs handed out the questionnaires during in-service time or ward meetings to all the nurses who met the inclusion criteria. The drop-boxes were kept in a

secure place in the CNE's office, so that no one could have access to the completed questionnaires.

3.1.6. Data collection

Data were collected using a self-administered questionnaire. Self-administered questionnaires are considered an economical means of gathering information from participants about their options, knowledge and skills (De Leeuw & Hox 2014). Questionnaires are commonly administered in paper form, mailed to participants or sent via email or other electronic means such as SurveyMonkey (Dillman et al. 2014). The choice of the method of administration depends on several factors including the target population, sample size, investigator time, financial constraints and the amount and type of data to be collected (Fink 2015). The advantage of using paper-based questionnaires for this project was that most nurses did not have access to email during work hours. In addition, paper-based questionnaires were easier to distribute to participants during in-services to increase response rate (Cho et al. 2013). Therefore, this method was considered the most appropriate for this study since the aim was to investigate the self-reported nurses' perceptions of their knowledge and skills towards clinical supervision of students in hospital settings.

3.1.7. Data collection instrument

The data collection instrument comprised of participant demographic data and the modified Clinical Supervision Self-Assessment Tool (mCSAT) incorporating the mCSAT–knowledge and mCSAT-skills components.

3.1.7.1. Demographic data

The demographic data collected included: age, gender, employment status, years of experience as a nurse, area of speciality, years working in current department, highest level of qualification, experience of working with students, number of weeks of supervising students per year and clinical supervision training received.

3.1.7.2. Modified Clinical Supervision Self-Assessment Tool (mCSAT)

The mCSAT was used for data collection to rate nurses' knowledge and skills relating to clinical supervision (Chigavazira et al. 2018). The mCSAT was developed based on the Clinical Supervision Self-Assessment Tool that was originally developed for multidisciplinary clinical supervisors (HWA, 2011). The mCSAT comprised of two components: mCSAT-Knowledge (30 items) and mCSAT-Skills (30 items) (Chigavazira, et al. 2018). Each component consists of three subscales: facilitating learning (nine items), problem-solving (10 items) and evaluating learning (11 items). In this study participants were asked to rate each of the item on a 1(strongly disagree) to 5 (strongly agree) point Likert scale. The minimum and maximum scores obtainable for each component were 30 to 150, respectively.

Prior to use in this study the tool was validated using a panel of six experts with extensive experience in research and clinical supervision of nursing students and piloted tested with a sample of 20 nurses. The results of the validation and reliability testing indicated high internal consistency with overall Cronbach's alpha values >0.90 (Chigavazira, et al. 2018). More specifically the Cronbach's alpha values for the mCSAT-Knowledge subscales ranged from 0.93 to 0.96 and for the mCSAT skills subscales ranged from 0.95 to 0.96. Mean scores were calculated for each item to determine the level of knowledge and skills with scores ≤2 classified as low, 2.5-3 moderate ≥ 3.5 high.

3.1.7.3. Strategies to improve the response rate

Typically, the survey response rate ranges has been reported to range from 57% to 72 % for nursing studies (Corner & Lemonde 2019). A low response rate is known to increase the potential for selection bias and threaten the external validity of the study, as participants may differ systematically from non-participants (Polit & Beck 2012). Therefore, various evidenced-based response-aiding strategies were used. To enhance clarity, the questionnaire was simple, written in plain English language using non-technical terms (Fink 2015). It was short and was anticipated to take 15–30 minutes to complete. As an incentive, the participants were afforded time to complete the questionnaire during working hours at in-service time and discouraged from completing it in their own time. To reduce non-response bias and increase the response rate, CNEs encouraged the nurses to attend in-services and ward meetings to increase the participation rate in the study. Participants who were unable to complete the questionnaire during in-service were encouraged to do so at a convenient time and a second copy would be provided at follow-up as per the CNE's request.

Follow-ups in the form of weekly emails were sent to the CNEs to encourage them to distribute the questionnaires, discuss progress and any issues encountered (Cho et al. 2013). The initial follow-up email was sent to the CNEs one week after the initial encounter and commencement of data collection and subsequent reminders were sent to CNEs at the second, third and fourth week to maximise the response rate (Cook et al. 2009; Edwards 2009). All participants were reminded to put their responses in the resealable envelope and place the sealed envelope in the drop-box as soon as they had completed the questionnaire.

3.1.8. Ethical considerations

3.1.8.1. Ethical approval

Ethical consideration is a mandatory requirement for any researcher conducting research in humans. The National Health and Medical Research Council (NHMRC) (2014) stipulate that researchers should protect participants from any form of bio-psychosocial and emotional harm or exploitation during the study from inception, through to publication of the results (DePoy & Gitlin 2011). The National Statement on Ethical

Conduct in Human Research (2014) refers to risk as 'potential harm, discomfort or inconvenience'. In this study, the foreseeable risk was negligible or no more than inconvenience.

Prior to commencement of this study, ethical approval was obtained from the SWSLHD HREC, Reference LNR/16/L/POOL/339 (see Appendix D) and authorised by the Chief Executive at Bankstown-Lidcombe Hospital, Site-specific authorisation Reference: LNRSSA/16/LPOOL/445 (see Appendix E), as well as from the HREC of the University of Wollongong School of Nursing in which the study took place. The study complied with the values and principles of ethical conduct as outlined in the National Statement on Ethical Conduct in Human Research (Commonwealth of Australia 2015). Ethical principles of respect for cultural diversity, individual's responsibility, informed consent, personal integrity, human vulnerability, beneficence, justice, privacy, anonymity and confidentiality were addressed at various stages of this study (NHMRC 2014).

3.1.8.2. Permission to conduct the study at the hospital

Permission to conduct the study at the local hospital was obtained from the DNMS of the participating hospital. The DNMS was provided written information about the study, which outlined the aims, objectives; purpose and the process of the study (see Appendix A). Since it was a large hospital, the DNMS was also requested to nominate key persons who would help with the recruitment of participants and data collection. Permission was also obtained from the DMNS of the participating hospital to conduct debriefing meetings with the clinical leadership team, which included NUMs, NEs and CNEs.

3.1.8.3. Upholding ethical principles

In this study, it was important for the researcher to uphold and maintain the principles of respect, autonomy, beneficence, justice, privacy and confidentiality. To show respect for personal integrity and uphold the principle of beneficence (i.e., protection from harm), justice (i.e., fairness) and autonomy, participants were provided with the PIS (see Appendix B) that outlined the purpose of the study and their involvement. They were informed that participation was strictly voluntary and they should not feel coerced to participate. Neither participation nor non-participation would affect their employment

relationship with the health service organisation and participation was not required as a condition of employment.

Participants were also made aware that there were no rewards for those who opted to participate, nor punishment for those who opted not to participate. Participants were made aware that they had the right to withdraw at any point without prejudice (Schneider et al. 2013). However, the data that they would have provided would not be removed from the study, as the data were anonymous. To ensure absolute autonomy in their decision-making, informed consent was requested prior to completing the questionnaire. Completion and return of the anonymous questionnaire was considered implied consent or tacit consent (DePoy & Gitlin 2011); hence, no written consent was required.

Conversely, to uphold the principle of beneficence and justice, all the participants in this study were given the opportunity to make their own informed decisions to participate in the study or not. In addition, the study was of low and negligible risk and strictly adhered to the predetermined protocol which had been endorsed by the SWSLHD HREC. In this study, the foreseeable risk was only inconvenience, thus, to be fair all the participants were given time during in-service to complete the questionnaire so they would not use their own time.

To ensure participants' privacy, maintain anonymity and confidentiality, participants were informed that data would be collected using an anonymous self-reporting questionnaire. Personal identity was not required on participants' responses. Participants were instructed not to write their names on the questionnaire or anything that could make their information identifiable. They were also provided with a return envelope addressed to the researcher for them to put their responses and advised to seal the envelope before putting it into an irretrievable drop-box. Only the researchers had the authority to open the drop-box at the end of data collection period. Participants were assured that information collected from them would only be used by the researchers for the purpose of the study and would not be disclosed to anyone participants were assured that only aggregate data would be reported and published.

3.1.9. Data storage and retention

According to the Research Data Management Policy February 2019 (UOW_POL_74), all paper documents must be kept in a secure place under lock and key. In this study, all data on hard copies were stored in a locked filing cabinet in a restricted, secure and locked location at the University of Wollongong Research Centre. Electronic data were kept under security-coded computerised records. The data were kept secure to prevent unauthorised access, destruction, misuse or alteration. After completion and publication of the study, all data will be kept securely in a retrievable form for a minimum of five years (UOW_POL_74). Thereafter, all the stored data will be appropriately destroyed (NMHRC 2009). Hard copy documents will be shredded and destroyed, while electronic data will be deleted according to the Research Code of Practice and Data Management policy February 2019 (UOW_POL_74).

3.1.10. Data analysis

All data were entered into SurveyMonkey and exported to SPSS version 22.0 for analysis. Missing data was less than 1% (100 missing values, 0.71 %). The series mean method was used to replace the missing values, as more complex models were highly unlikely to change value estimates due to the small number of missing items (Cokluk & Kayri 2011; Little & Rubin 2014). Relevant items were reverse-coded before analysing to ensure that higher scores reflected higher knowledge and skills. Demographic data were summarised using descriptive statistics including means, standard deviations and frequency distributions. The reliability of the scale and subscales were assessed using Cronbach's alpha coefficient (Streiner et al. 2014). Values greater than or equal to 0.9 were considered excellent, 0.8–<0.9 good, 0.7–<0.8 acceptable, 0.6–<0.7 questionable and 0.5–<0.6 poor (DeVellis 2016).

The known-groups technique was then used to identify the differences in the nurses' perceptions of their knowledge and skills of clinical supervision based on their demographics and professional attributes (LoBiondo-Wood & Haber 2014). In this study, the differences in mCSAT scores between participants based on specific demographics characteristics known to influence nursing clinical practice namely clinical supervision training (Heaven et al. 2006) and years of clinical experience as a nurse was undertaken (Tourangeau et al. 2016). For this purpose, the sample was

divided into three groups based on previous clinical supervision training: 1) no previous training, 2) hospital-based in-service program or preceptor course and 3) post-graduate qualification related to clinical supervision (e.g., Certificate IV in Workplace and Assessment). The sample was also divided into three groups based on number of years of clinical experience as a nurse, namely those with 1) <2 years, 2) 2–5 years and 3) >5 years of experience. Analysis of variance (ANOVA) using Bonferroni post-hoc comparison was used to test if nurses who had completed clinical supervision training and those with more clinical experience as a nurse would achieve higher mCSAT–knowledge and mCSAT–skill scores. A p-value of < 0.05 was considered statistically significant.

3.1.11. Summary

This chapter has described the research design and methods that were adopted to investigate nurses' perceptions of their knowledge and skills towards the clinical supervision of students during clinical placement in hospital settings. This chapter demonstrated a robust systematic methodological approach for conducting this study. The study results will be discussed in detail in Chapter 4.

Chapter 4. Results

4.1. Introduction

This chapter presents the results of the cross-sectional study undertaken to investigate nurses' perceptions of their knowledge and skills towards clinical supervision of students in hospital settings.

4.1.1. Response rate and demographic characteristics of participants

A total of 232 of the 400 nurses completed the questionnaire for an overall response rate of 58%. The mean age of the participants was 38.6 (±11.3) years and (n=178; 77.7%) were females.

4.1.2. Professional characteristics of participants

More than three-quarters of the participants (n=178, 79.8%) were employed in full-time permanent roles. The highest qualification for the majority (n=158, 68.7%) was a Bachelor of Nursing degree. Less than one-quarter (n=54, 23.6%) of the participants had a post-graduate qualification.

The mean number of years of experience as a nurse was 10.7 (± 9.9) years and the mean number of years working in the current department was 6.9 (± 6.8) years. Most of the participants (n =183, 78.9%) had previously worked with students on clinical placement and (n=49, 21.1%) nurses had not previously worked with students. On average, participants spent 11 weeks supervising a student on clinical placement each year. The majority, 55 (23.8%), of the participants worked in medical wards, 46 (19.8%) worked in surgical wards and 52 (22.5%) worked in other areas including emergency, rehabilitation; aged care and intensive care (see Table 3).

Table 3. Professional Characteristics of Participants (n=232)

Professional Characteristics	Frequency (%)
Employment status	
Permanent full-time	178 (79.8)
Permanent part-time	45 (20.2)
Highest qualifications	
Certificate of Nursing	2 (0.9)
Diploma of Nursing	16 (7.0)
Bachelor of Nursing	158 (68.7)
Graduate certificate	31 (13.5)
Master's degree	23 (10.0)
Area of work	
Emergency	30 (12.9)
Surgical	46 (19.8)
Rehabilitation	9 (3.9)
Medical	55 (23.7)
Aged care	22 (9.1)
Intensive care	16 (6.9)
Other	52 (22.4)
Type of clinical supervision training	
Preceptor course	67 (30.9)
In-service training	37 (17.1)
Post-graduate certificate in clinical teaching	4 (1.8)
Certificate IV in Workplace and Assessment	17 (7.8)
Clinical supervision as part of a post-graduate degree	7 (3.2)
No training	85 (36.6%)
Have you previously worked with pre-registration nursing students on clinical placement?	
Yes	183 (78.9)
No	49 (21.1)
Number of years working as a nurse	10.7 (9.9)
Number of years working in the current department	6.9 (6.8)
Number of weeks/years supervising student on clinical placement	11.1 (11.9)

4.2. Knowledge of Clinical Supervision

4.2.1. Reliability

The internal consistency of mCSAT–knowledge was excellent, with a Cronbach α of 0.98. The three subscales of facilitating learning, problem-solving and evaluating learning had Cronbach's alphas values of 0.93, 0.94 and 0.96 respectively.

4.2.2. Knowledge scores

The following section presents the results relating to nurses' perception of their knowledge relating to clinical supervision of students. The overall score for knowledge relating to clinical supervision was 116.59 (SD ±20.49) (with a minimum 30 and a maximum obtainable 150). The mean and standard deviations scores for knowledge are presented in Tables 4, 5 and 6. Responses were skewed to the left with most participants responding either 'Agree' or 'Strongly Agree' on all items for the mCSAT–knowledge scores.

4.2.3. Facilitating learning

For the subscale facilitating learning, the mean scores ranged from 3.86(SD ± 0.78) to 4.29(SD±0.65). The overall score for this subscale was 36.21 (SD ±5.47). The highest knowledge scores were for the item three 'Develop positive and effective relationships with students' and the lowest score was for item six 'Develop a variety of strategies for assisting skill acquisition based on the student's goals and analysis of their learning needs' (see Table 4).

Table 4. Subscale: Facilitating Learning (n=232)

Subscale: *Facilitating learning* (α= 0.93)	**Mean ± SD**
1. Conduct a variety of education activities (i.e., demonstrations, guided practice and tutorials) to achieve the learning goals for the clinical placement.	3.88 ± 0.87
2. Utilise learning opportunities effectively to support or extend the student appropriately as their capabilities develop.	3.98 ± 0.77
3. Develop positive and effective relationships with students.	4.29 ± 0.65
4. Provide a range of experiences, so the student can effectively apply their theoretical knowledge to clinical practice.	3.98 ± 0.76
5. Develop a learning plan with the student that is manageable, realistic and appropriate for my clinical setting.	3.97 ± 0.77
6. Develop a variety of strategies for assisting skill acquisition based on the student's goals and analysis of their learning needs.	3.86 ± 0.78
7. Identify and clearly articulate to the student the boundaries of our respective roles and relationship.	4.07 ± 0.72
8. Provide consistently clear and constructive feedback including checking the student's understanding of my feedback.	4.02 ± 0.75
9. Use educational resources to facilitate learning effectively for individuals and groups.	4.00 ± 0.75
Overall Score	**36.21 ± 5.47**

4.2.4. Problem-solving

Two items on this scale namely 'Effectively manage my emotions and the emotions of others in interactions, even when tensions arise' and 'Effectively guide and support the student's patient care performance, including dealing with mistakes' were reverse-scored to ensure that higher scores reflected higher knowledge. For the subscale problem-solving, the mean scores ranged from 3.88(SD ± 0.76) to 4.07(SD± 0.69). The overall score for this subscale was 39.28 (SD± 6.57). The highest knowledge scores were for item six 'Effectively guide and support the student's patient care performance, including dealing with mistakes' and the lowest score was for item seven 'Identify and use a range of approaches to resolve conflict within the clinical supervision relationship' (see Table 5).

Table 5. Subscale: Problem-Solving (n=232)

Subscale: *Problem-solving* (α= 0.94)	**Mean ± SD**
1. Seek support from senior staff to help resolve challenging situations in the clinical placement.	4.04 ± 0.70
2. Identify and act on any risks to patients/consumers. Student and supervisor to ensure emotional, physical and psychological wellbeing of all patients.	4.01 ± 0.71
3. Effectively manage my emotions and the emotions of others in interactions, even when tensions arise.	3.92 ± 0.78
4. Identify opportunities to collaborate with colleagues to achieve the learning outcomes of the placement.	3.97 ± 0.71
5. Develop an approach to clinical supervision that is evidence-based and grounded in educational principles.	3.92 ± 0.77
6. Effectively guide and support the student's patient care performance, including dealing with mistakes.	4.07 ± 0.69
7. Identify and use a range of approaches to resolve conflict within the clinical supervision relationship.	3.88 ± 0.76
8. Effectively manage the competing demands of my responsibilities to my patients, students and colleagues.	3.94 ± 0.74
9. Identify issues regarding the student, their supervision or workplace, which may put the student at risk of failing.	3.91 ± 0.78
10. Facilitate the student to acquire the skills required for professional practice in my setting.	3.99 ± 0.73
Overall Score	**39.28 ± 6.57**

4.2.5. Evaluating learning

For the subscale evaluating learning, the mean scores ranged from 3.81 (SD± .84) to 3.96 (SD± .78). The overall score for this subscale was 41.62 (SD± 8.62). The highest knowledge scores were for item 'Actively encourage the students to engage in critical dialogue about professional practice where they can question, reflect and discuss issues in a supportive environment' and the lowest score was for 'Effectively manage the student who displays challenging behaviour' (see Table 6).

Table 6. Subscale: Evaluating Learning (n=232)

Subscale: *Evaluating learning* (α= 0.96)	**Mean ± SD**
1. Make recommendations with respect to how the student has met the objectives of the clinical placement.	3.92 ± 0.79
2. Conclude the feedback session with agreed priorities and plan of action to improve student performance.	3.88 ± 0.84
3. Adapt my teaching strategies to support different approaches to learning in a variety of settings.	3.91 ± 0.82
4. Evaluate the student's performance using standardised criteria or assessment tools.	3.86 ± 0.80
5. Incorporate activities to help the student identify their learning needs, analyse their progress and guide ongoing learning.	3.88 ± 0.83
6. Use strategies developed in consultation with the student, education provider staff and managers, to effectively address issues contributing to at-risk performance.	3.84 ± 0.80
7. Negotiate with colleagues to develop a timetable and the space /equipment required for the clinical placement.	3.88 ± 0.82
8. Adapt my methods for giving feedback to suit different preferences and learning styles.	3.90 ± 0.84
9. Approach colleagues to discuss problems and develop strategies to resolve issues in the clinical placement.	3.91±0.78
10. Effectively manage the student who displays challenging behaviour.	3.81 ± 0.84
11. Actively encourage the student to engage in critical dialogue about professional practice where they can question, reflect and discuss issues in a supportive environment.	3.96 ± 0.78
Overall Score	**41.62 ± 8.62**

4.2.6. Comparison of knowledge scores based on professional characteristics

In this section, the mean knowledge score**s** based on professional characteristics were analysed, namely: gender, employment status, years of experience as a nurse, number of years in the current department, highest qualifications and type of clinical supervision training received.

4.2.7. Gender

The mean knowledg**e** score for male registered nurses was higher (118.64, SD±20.02) compared to female registered nurses (116.49, SD±19.70); however, this difference was not statistically significant ($p = 0.50$).

4.2.8. Employment status

The mean knowledge score for registered nurses who worked full-time was higher (116.92, SD±21.58) compared to those who worked part-time (114.76, SD±17.39); however, this difference was not statistically significant ($p = 0.53$).

4.2.9. Years of clinical experience

The mean knowledge score for registered nurses who had 1–2 years' experience was 119.0 (SD±14.87), for those with 3–5 years of experience it was 116.01 (SD±20.32) and for those who had experience of greater than five years it was 118.05 (SD± 22.84). One-way ANOVA yielded no significant differences in mCSAT–knowledge based on the years of clinical experience as registered nurse ($F [2, 217] = 0.41$), $p = 0.66$.

4.2.10. Years working in current department

The mean knowledge score for nurses who had 1–2 years of experience was 115.50 (SD± 20.39), for those who had 3–5 years of experience it was 117.39 (SD±20.42) and for those who had experience greater than of five years it was 118.80 (SD±18.89). One-way ANOVA yielded no significant differences in mCSAT–knowledge based on the years of clinical experience as registered nurse ($F [2, 208] =0.59$), $p = 0.56$.

4.2.11. Highest qualifications

The mean knowledge score for nurses whose highest qualification was Diploma, Bachelor and Master Degrees were (M = 115.71 ± 12.02, 95% CI [109.52, 121.89]), (M = 115.85 ± 19.14, 95% CI [112.83, 118.88]) and (M = 119.02 ± 25.85, 95% CI [111.96, 126.07]), respectively. One-way ANOVA yielded no significant differences in mCSAT–knowledge based on the highest qualifications (F [2, 224] = 208.30), p =0.61.

4.2.12. Type of clinical supervision training

The mean knowledge score for registered nurses who had not received training was 110.15 (SD±19.80), for those who received hospital-based in-service clinical supervision training program it was 119.89 (SD±18.95) and for those who had formal clinical supervision training it was 119.71 (SD± 25.99). One-way ANOVA yielded significant differences in mCSAT–knowledge based on the type of clinical supervision training (F [2, 212] = 5.81), $p < 0.001$.

Post-hoc comparison was conducted to compare the knowledge scores between the three groups of nurses based on the type of clinical supervision training they had received. The results indicated that nurses who had completed a hospital-based clinical supervision in-service training program (M = 119.86 ± 18.95, 95% CI [116.16, 123.57]) had significantly higher mCSAT–knowledge scores than those who had no previous training in clinical supervision (M = 110.15 ± 19.80, 95% CI [105.86, 114.45]), $p < 0$ 001. Similarly, nurses who had a formal post-graduate clinical supervision training qualification (M = 119.71 ± 25.99, 95% CI [109.64, 129.81]) had significantly higher mCSAT–knowledge scores than those who had no previous training in clinical supervision (M = 110.15 ± 19.80, 95% CI [105.86, 114.45]), $p < 0.05$.

Lastly, nurses who had completed a hospital-based clinical supervision in-service program had higher mCSAT–knowledge scores (M = 119.86 ± 18.95, 95% CI [116.16, 123.57]) than those who had a formal post-graduate clinical supervision training qualification (M = 119.71 ± 25.99, 95% CI [109.64, 129.81)]; however, the difference was not statistically significant.

4.3. Skills of Clinical Supervision

4.3.1. Reliability

The internal consistency for the full mCSAT-skills was high (α = 0.98, M = 3.95). The Cronbach's alpha values were deleted if an item was lower than the resulting coefficients in each item. The Cronbach's alpha for facilitating learning, problem-solving and evaluating learning were 0.95, 0.96 and 0.96, respectively.

4.3.2. Skills scores

The following section presents the results relating to nurses' perception of their skills relating to clinical supervision. The overall score for skills relating to clinical supervision was 115.60 (SD± 22.19) (with a minimum 30 and a maximum obtainable 150). The mean and standard deviations scores of the skills are presented in Tables 5, 6 and 7. Responses were skewed to the left with most participants responding either 'Agree' or 'Strongly Agree' on all items for the mCSAT-skills scores.

4.3.3. Facilitating learning

For the subscale of facilitating learning, the mean skill scores ranged from 3.89 (SD± .76) to 4.34 (SD± .63). The overall score for this subscale was 35.90 (SD ±5.74). The highest skills scores were for 'Develop positive and effective relationships with students' and lowest scores were for 'Develop a variety of strategies for assisting skill acquisition based on student goals and analysis of their learning needs' (see Table 7).

Table 7. Subscale: Facilitating Learning (n=232)

Subscale: *Facilitating learning* ($\alpha = 0.95$)	**Mean (SD)**
1. Conduct a variety of education activities (i.e., demonstrations, guided practice and tutorials) to achieve the learning goals for the clinical placement.	4.01 ± 0.82
2. Utilise learning opportunities effectively to support or extend the student appropriately as their capabilities develop.	4.08 ± 0.68
3. Develop positive and effective relationships with students	4.34 ± 0.63
4. Provide a range of experiences so the student can effectively apply their theoretical knowledge to clinical practice.	4.00 ± 0.79
5. Develop a learning plan with the student that is manageable, realistic and appropriate for my clinical setting.	3.95 ± 0.78
6. Develop a variety of strategies for assisting skill acquisition based on the student's goals and analysis of their learning needs.	3.89 ± 0.76
7. Identify and clearly articulate to the student the boundaries of our respective roles and relationship.	4.21 ± 0.70
8. Provide consistently clear and constructive feedback including checking the student's understanding of my feedback.	4.02 ± 0.78
9. Use educational resources to facilitate learning effectively for individuals and groups.	4.01 ± 0.74
Overall Score	**35.90** ± **5.74**

4.3.4. Problem-solving

Two items on this scale: 'Effectively manage my emotions and the emotions of others in interactions, even when tensions arise' and 'Effectively guide and support the student's patient care performance, including dealing with mistakes' were reverse-scored to ensure that higher scores reflected higher skills.

For the subscale problem-solving, the mean skill scores ranged from 3.88 (SD± 0.82), 3.88 (SD± 0.91) items seven and nine respectively to 4.12 (SD± 0.75) for item one. The overall score for this subscale was 39.29 (SD± 6.85). The highest skills scores were for the item one 'Seek support from senior staff to help resolve challenging situations in the clinical placement' and the lowest score was for items seven and nine 'Identify and use a range of approaches to resolve conflict within the clinical supervision relationship' and 'Identify issues regarding the student, their supervision or workplace, which may put the student at risk of failing' (see Table 8).

Table 8. Subscale: Problem-Solving (n=232)

Subscale: *Problem-solving* (α = 0.96)	**Mean (SD)**
1. Seek support from senior staff to help resolve challenging situations in the clinical placement.	4.12 ± 0.75
2. Identify and act on any risks to patients/consumer, student and supervisor to ensure emotional, physical and psychological wellbeing of all patients.	4.11 ± 0.63
3. Effectively manage my emotions and the emotions of others in interactions, even when tensions arise.	3.95 ± 0.76
4. Identify opportunities to collaborate with colleagues to achieve the learning outcomes of the placement.	3.94 ± 0.77
5. Develop an approach to clinical supervision that is evidence-based and grounded in educational principles.	3.97 ± 0.78
6. Effectively guide and support the student's patient care performance, including dealing with mistakes.	4.03 ± 0.77
7. Identify and use a range of approaches to resolve conflict within the clinical supervision relationship.	3.88 ± 0.82
8. Effectively manage the competing demands of my responsibilities to my patients, students and colleagues.	3.91 ± 0.78
9. Identify issues regarding the student, their supervision or workplace, which may put the student at risk of failing.	3.88 ± 0.91
10. Facilitate the student to acquire the skills required for professional practice in my setting.	3.98 ± 0.73
Overall Score	**39.29 ± 6.85**

4.3.5. Evaluating learning

For the subscale evaluating learning, the mean skill scores ranged from 3.72 (SD± .93) to 3.98 (SD± .81). The overall score for this subscale was 41.62 (SD± 8.76). The highest skill scores were for 'Actively encourage the students to engage in critical dialogue about professional practice where they can question, reflect and discuss issues in a supportive environment' and the lowest score was for 'Negotiate with colleagues to develop a timetable and the space/equipment required for the clinical placement' (see Table 9).

Table 9. Subscale: Evaluating Learning (n=232)

Subscale*: Evaluating learning* ($\alpha = 0.96$)	**Mean (SD)**
1. Make recommendations with respect to how the student has met the objectives of the clinical placement.	3.88 ± 0.91
2. Conclude the feedback session with agreed priorities and a plan of action to improve student performance	3.81 ± 0.90
3. Adapt my teaching strategies to support different approaches to learning in a variety of settings.	3.83 ± 0.96
4. Evaluate the student's performance using standardised criteria or assessment tools.	3.79 ± 0.93
5. Incorporate activities to help the student identify their learning needs, analyse their progress and guide ongoing learning.	3.88 ± 0.86
6. Use strategies developed in consultation with the student, education provider staff and managers, to effectively address issues contributing to at-risk performance.	3.86 ± 0.82
7. Negotiate with colleagues to develop a timetable and the space/ equipment required for the clinical placement.	3.72 ± 0.93
8. Adapt my methods for giving feedback to suit different preferences and learning styles.	3.88 ± 0.83
9. Approach colleagues to discuss problems and develop strategies to resolve issues in the clinical placement.	3.89 ± 0.80
10. Effectively manage the student who displays challenging behaviour.	3.79 ± 0.89
11. Actively encourage the student to engage in critical dialogue about professional practice where they can question, reflect and discuss issues in a supportive environment.	3.98 ± 0.81
Overall Score	**41.62 ± 8.76)**

4.3.6. Comparison of skill scores based on professional characteristics

In this section, the mean skills scores based on professional characteristics were analysed, namely: gender, employment status, years of experience as a nurse, number of years in the current department, highest qualifications and type of clinical supervision training received.

4.3.7. Gender

The mean skills score for male nurses was higher (116.90, SD±20.17) compared to female nurses (115.70, SD±21.94); however, this difference was not statistically significant ($p = 0.50$).

4.3.8. Employment status

The mean skill score for nurses who worked full-time was higher (116.19, SD±22.83) compared to those who worked part-time (112.86, SD±21.33); however, this difference was not statistically significant ($p = 0.38$).

4.3.9. Years of clinical experience

The mean skills score for nurses who had 1–2 years of experience was 118.56 (SD± 17.80), for those who 3–5 years of experience it was 115.46 (SD± 20.97) and for those who had experience greater than five years it was 116.39 (SD ± 25.59). One-way ANOVA yielded no significant differences in mCSAT-Skills based on the years of clinical experience as a nurse ($F [2, 213] = 0.30$), $p = 0.74$.

4.3.10. Years working in current department

The mean skills score for the nurses who had 1–2 years of experience was 114.36 (SD± 21.08), for those who 3–5 years of experience it was 115.56 (SD±21.93) and for those who had experience greater than five years it was 117.76 (SD±21.20). One-way ANOVA yielded no significant differences in mCSAT-skills based on the years of clinical experience as a nurse ($F [2, 204] = 0.50$), $p = 0.61$.

4.3.11. Highest qualifications

The mean skill scores for nurses whose highest qualification was Diploma, Bachelor and Master were ($M = 114.29 \pm 16.22$, 95% CI [105.96, 122.64]), ($M = 115.39 \pm 20.35$, 95% CI [112.14, 118.64]) and ($M = 116.63 \pm 28.43$, 95% CI [108.79, 124.46]), respectively. One-way ANOVA yielded no significant differences in mCSAT-skills based on the qualifications ($F [2, 220] = 0.91$), $p = 0.91$.

4.3.12. Type of clinical supervision training

The mean skills score for nurses who had not received training was 109.15 (SD± 21.73), for those who received hospital-based clinical supervision in-service training program it was 119.60 (SD± 20.00) and for those who had formal clinical supervision training qualifications it was 115.78 (SD± 29.82). One-way ANOVA yielded significant

differences in mCSAT-skills based on the type of clinical supervision training received (F [2, 202] = 5.12), p < 0.001.

Post-hoc comparison was conducted to compare the skill scores between the three groups of nurses based on the type of clinical supervision training they had received. The results indicated that nurses who had completed a hospital-based clinical supervision in-service training program (M = 119. 60 ± 20.00, 95% CI [115. 67, 123.53]) had significantly higher mCSAT-skills scores than those who had no previous training in clinical supervision (M = 109.12± 21.73, 95% CI [104.35, 113.89]), $p < 0$ 001. Similarly, nurses who had a formal post-graduate clinical supervision training qualification (M = 115.78±29.82, 95% CI [103.98, 127.57]) had significantly higher mCSAT-skills scores than those who had no previous training in clinical supervision (M = 109.12± 21.73, 95% CI [104.35, 113.89]), p < 0.05.

Lastly, nurses who had completed a hospital-based clinical supervision in-service training program had higher mCSAT-skills scores (M = 119.60 ± 20.00, 95% CI [115. 67, 123.53]) than those who had a formal post-graduate clinical supervision training qualification (M = 115.78±29.82, 95% CI [103.98, 127.57]); however, the difference was not statistically significant.

4.3.13. Comparison of knowledge and skill scores

In a comparison of individual items that constituted the subscale of facilitating learning, the results demonstrated that there was no difference in knowledge and skill scores for one item: **'**Provide consistently clear and constructive feedback including checking the student's understanding of my feedback'. There was higher knowledge scores compared to skills scores for one item: 'Develop a learning plan with the student that is manageable, realistic and appropriate for my clinical setting'. Seven out of nine items were rated higher for skills compared to knowledge. Although, the skills scores were higher for the seven items, only the scores relating to the ability to 'Identify and articulate to the students the boundaries of our respective roles and relationships' had significantly higher skills scores than the knowledge scores ($p = 0.03$) (see Table 10).

Table 10. Knowledge and Skills Comparisons: Facilitating Learning (n=232)

Subscale: ***Facilitating learning*** (α= 0.93)	**Knowledge**	**Skills**	**P=value**
1. Conduct a variety of education activities (i.e., demonstrations, guided practice and tutorials) to achieve the learning goals for the clinical placement.	3.88 ± 0.87	4.01 ± 0.82	0.10
2 .Utilise learning opportunities effectively to support or extend the student appropriately as their capabilities develop.	3.98 ± 0.77	4.08 ± 0.68	0.14
3. Develop positive and effective relationships with students.	4.29 ± 0.65	4.34 ± 0.63	0.40
4. Provide a range of experiences, so the student can effectively apply their theoretical knowledge to clinical practice.	3.98 ± 0.76	4.00 ± 0.79	0.78
5. Develop a learning plan with the student that is manageable, realistic and appropriate for my clinical setting.	3.97 ± 0.77	3.95 ± 0.78	0.78
6. Develop a variety of strategies for assisting skill acquisition based on the student's goals and analysis of their learning needs.	3.86 ± 0.78	3.89 ± 0.76	0.68
7. Identify and clearly articulate to the student the boundaries of our respective roles and relationship.	4.07 ± 0.72	4.21 ± 0.70	0.03
8. Provide consistently clear and constructive feedback including checking the student's understanding of my feedback.	4.02 ± 0.75	4.02 ± 0.78	1.0
9. Use educational resources to facilitate learning effectively for individuals and groups.	4.00 ± 0.75	4.01 ± 0.74	0.89
Overall Score	**36.21 ± 5.47**	**35.90 ± 5.74**	

In a comparison of individual items that constituted the subscale of problem-solving, the results demonstrated that there was no difference in knowledge and skill scores for two items: ' Identify and use a range of approaches to resolve conflict within the clinical supervision relationship' and 'Facilitate the student to acquire the skills required for professional practice in my setting'. The item 'Seek support from senior staff to help resolve challenging situations in the clinical placement' received the highest score for skill and an overall highest score among all items for both knowledge and skill. Interestingly, an equivalent of four items had higher scores for knowledge compared to skills. Similarly, four items had higher skills scores compared to knowledge scores. However, none of the differences was significantly higher (see Table 11).

Table 11. Knowledge and Skills Comparisons: Problem-Solving (n=232)

Subscale: *Problem-solving* (α= 0.94)	**Knowledge**	**Skills**	**P=Value**
1. Seek support from senior staff to help resolve challenging situations in the clinical placement.	4.04 ± 0.70	4.12 ± 0.75	0.24
2. Identify and act on any risks to patients or consumers, student and supervisor to ensure emotional, physical and psychological wellbeing of all patients.	4.01 ± 0.71	4.11 ± 0.63	0.11
3. Effectively manage my emotions and the emotions of others in interactions, even when tensions arise.	3.92 ± 0.78	3.95 ± 0.76	0.68
4. Identify opportunities to collaborate with colleagues to achieve the learning outcomes of the placement.	3.97 ± 0.71	3.94 ± 0.77	0.66
5. Develop an approach to clinical supervision that is evidence-based and grounded in educational principles.	3.92 ± 0.77	3.97 ± 0.78	0.49
6. Effectively guide and support the student's patient care performance, including dealing with mistakes.	4.07 ± 0.69	4.03 ± 0.77	0.56
7. Identify and use a range of approaches to resolve conflict within the clinical supervision relationship.	3.88 ± 0.76	3.88 ± 0.82	1.0
8. Effectively manage the competing demands of my responsibilities to my patients, students and colleagues.	3.94 ± 0.74	3.91 ± 0.78	0.67
9. Identify issues regarding the student, their supervision or workplace that may put the student at risk of failing.	3.91 ± 0.78	3.88 ± 0.91	0.70
10. Facilitate the student to acquire the skills required for professional practice in my setting.	3.99 ± 0.73	3.98 ± 0.73	0.88
Overall Score	**39.28 ± 6.57**	**39.29 ±6.85**	

In a comparison of individual items that constituted the subscale of evaluating learning, the results demonstrated that there was no difference in knowledge and skill scores for two items: 'Incorporate activities to help the student identify their learning needs, analyse their progress and guide ongoing learning' and 'Use strategies developed in consultation with the student, education provider staff and managers, to effectively address issues contributing to at-risk performance'. There were higher knowledge scores compared to skills scores for nine of the 11 items in this subscale. However, the difference was not statistically significant (see Table 12).

Table 12. Knowledge and Skills Comparisons: Evaluating Learning (n=232)

Subscale: *Evaluating learning* (α= 0.96)	**Knowledge**	**Skills**	**P=value**
1. Make recommendations with respect to how the student has met the objectives of the clinical placement.	3.92 ± 0.79	3.88 ± 0.91	0.62
2. Conclude the feedback session with agreed priorities and a plan of action to improve student performance.	3.88 ± 0.84	3.81 ± 0.90	0.39
3. Adapt my teaching strategies to support different approaches to learning in a variety of settings.	3.91 ± 0.82	3.83 ± 0.96	0.34
4. Evaluate the student's performance using standardised criteria or assessment tools.	3.86 ± 0.80	3.79 ± 0.93	0.39
5. Incorporate activities to help the student identify their learning needs, analyse their progress and guide ongoing learning.	3.88 ± 0.83	3.88 ± 0.86	1.0
6. Use strategies developed in consultation with the student, education provider, staff and managers, to effectively address issues contributing to at-risk performance.	3.84 ± 0.80	3.86 ± 0.82	0.79
7. Negotiate with colleagues to develop a timetable and the space/equipment required for the clinical placement.	3.88 ± 0.82	3.72 ± 0.93	0.05
8. Adapt my methods for giving feedback to suit different preferences and learning styles.	3.90 ± 0.84	3.88 ± 0.83	0.80
9. Approach colleagues to discuss problems and develop strategies to resolve issues in the clinical placement.	3.91±0.78	3.89 ± 0.80	0.30
10. Effectively manage the student who displays challenging behaviour.	3.81 ± 0.84	3.79 ± 0.89	0.12
11. Actively encourage the student to engage in critical dialogue about professional practice where they can question, reflect and discuss issues in a supportive environment.	3.96 ± 0.78	3.98 ± 0.81	0.79
Overall Score	**41.62 ± 8.62**	**41.62 ±8.76)**	

4.3.14. Summary

This chapter presented the results of the cross-sectional study conducted to investigate nurses' perception of their knowledge and skills towards clinical supervision of students in hospital settings and identify the association of knowledge and skills to professional characteristics.

Chapter 5. Discussion

5.1. Introduction

The preceding chapter presented the results of this descriptive cross-sectional study. The purpose of the study was to investigate nurses' perceptions of their knowledge and skills regarding the clinical supervision of students in hospital settings. The bedside nurses were expected to have the appropriate knowledge and skills to facilitate student learning, solve problems pertaining to students and evaluate student performance as part of their clinical supervision role in practice.

This chapter aims to discuss the findings of the study and their relationship to current literature. The chapter begins with an expanded discussion of the key findings related to the nurses' perceptions of their knowledge and skills of clinical supervision. This discussion is based on the clinical supervision subscales of facilitating learning, problem-solving and evaluating learning. This is followed by a comparison between the knowledge and skills scores on individual questions within the subscales and the association between the nurses' clinical supervision knowledge and skills and their professional characteristics. The implications of these results, recommendations for nursing education, practice and policy and recommendations for further research will then be discussed. Last, the strengths and limitations of this study will be outlined. The thesis summary and conclusion will be discussed in Chapter 6.

5.2. Discussion of Key Results

5.2.1. Nurses' perceptions of their knowledge and skills of clinical supervision

The nurses' responses to the items assessing their knowledge and skills of clinical supervision were negatively skewed, with most participants selecting the 'Agree' or 'Strongly Agree' options. Taken together, these results suggest that those nurses' perceptions of their knowledge and skills were generally high. However, there were some significant differences in knowledge and skills scores based on the nurses' demographic and professional characteristics. This discussion will focus on the

variations in participants' responses based on these characteristics in the context of the existing literature.

5.2.1.1. Knowledge and skill scores on facilitating learning

The evaluation of the nurses' perceptions of their knowledge and skills regarding facilitating student learning during clinical placements reflected mixed perceptions across the nine items. The highest knowledge and skill scores were for the item 'Develop positive and effective relationships with students'. Interestingly, the participants' responses also reflected high knowledge and skill scores for the item 'Identify and clearly articulate to the student the boundaries of our respective roles and relationship'.

These findings demonstrated that nurses have the knowledge and skills to facilitate learning, as the results reflected an awareness of the importance of developing supportive relationships. The nurse–student relationship is one of the most important elements of quality clinical supervision because it creates an environment conducive to learning (Ford et al. 2016; Haitana & Bland 2011; Walker et al. 2008). The nurse–student relationship is fundamental to the student's confidence and the development of their clinical skills (Edgar & Connaughton 2014; Hughes & Fraser 2011). These findings are consistent with previous studies, which indicated that developing and building a trusting relationship with a student is a crucial part of clinical supervision (Aghamohammadi-Kalkhoran et al. 2011; Haitana & Bland 2011). The quality of the relationship, not just its existence, is what counts (Hutchinson & Purcell 2010). A strong supervisory relationship based on the frequent and meaningful engagement of all stakeholders, a shared vision and goals, and clear expectations and responsibilities has been identified as one of the most important elements in clinical supervision (American Association of Colleges of Nursing 2012).

It has been observed across most health professions that students' potential and confidence are maximised when they feel accepted and welcomed (Edgar & Connaughton 2014; Ford et al. 2016; Walker et al. 2008). The nurses' ability to articulate to the students the boundaries of their relationship emphasised that the nurses highly valued the legal obligation to work within their scope of practice (ANMAC 2012). This ensures patient safety by protecting the students from making errors that can

harm patients. This finding is supported by Omer et al. (2016), who reported that the clinical supervisor's role of protector was considered the most important and frequently attended role compared with others such as educator, facilitator, evaluator and support person.

These results are also consistent with the findings of previous studies that observed nurses' experiences of supervising students in hospital settings (Madhavanpraphakaran et al. 2014; McCarthy & Murphy 2010; O'Brien et al. 2014). A mixed-method study that was conducted by McCarthy and Murphy (2010) to explore nurses views on supervising students indicated that nurses viewed their roles of educator, facilitator/guide, support person, problem solver and evaluator as disruptive, burdensome and an added responsibility without financial remuneration that takes away their time for patient care (Ford et al. 2016; Haitana & Bland 2011; Madhavanpraphakaran et al. 2014; McCarthy & Murphy 2010; Parvin et al. 2016).

Time has been observed to be a significant barrier to nurses' clinical supervision, which is also the case in other health professions such as allied health, as students commented that they did not want to interrupt or ask for more time than that provided (Dawson, et al. 2013; Maloney et al. 2013). The nurses' roles as educator, facilitator/guide, support person, problem solver and evaluator are often considered roles of the employed clinical facilitators, as they are paid to perform them and are responsible for signing off on students' performances (Aghamohammadi-Kalkhoran et al. 2011; Madhavanpraphakaran et al. 2014). This reflects a perception that contradicts the empirical evidence, which shows that creating a conducive learning environment and facilitating clinical learning requires a collaborative human approach where the student is the focus (Huybrecht et al. 2011, Jokelainen et al. 2013; O'Brien et al. 2014; Omer et al. 2016).

Previous studies have also highlighted that when nurses work with students they are reluctant to let go because of a sense of liability and a desire to uphold safety (Haitana & Bland 2011; Maloney et al. 2013). As a result, nurses fail to involve students in clinical activities or to provide students with learning opportunities to practice clinical skills for fear of mistakes (Omer et al. 2016). Previous studies have also reported that students who are not well supported to practice, allowed to ask questions or given opportunities to apply theory during clinical placement do not develop the essential knowledge and

skills required to become safe practitioners when they enter the workforce. This ultimately puts patients at risk in the future (Birks et al. 2017; Brynildsen et al. 2014).

In contrast, in this study, the lowest knowledge and skill scores for facilitating learning were for the item 'Develop a variety of strategies for assisting skill acquisition based on student goals and analysis of their learning needs'. Consistent with these results, the participants' responses also reflected lower knowledge scores for the item 'Conduct a variety of education activities (demonstrations, guided practice, and tutorials) to achieve the learning goals for clinical placement'. These results indicate that although nurses may have some knowledge to facilitate learning, unawareness of students' clinical learning goals could be an impediment to their effectiveness.

Lower knowledge and skill to develop different strategies to a conduct a variety of education activities based on students' goals and learning needs could be attributed to some limited understanding of the students' curriculums, as identified in previous studies (Ford et al. 2016). A longitudinal three-year study across multiple sites, conducted by Ford et al. (2016) to explore nurses' perspectives on supervising students, reported that nurses must be informed about the students' scope of practice, competencies and assessment needs and what students 'can or cannot do' during clinical placement otherwise they find it difficult to integrate different teaching approaches such as demonstrations and guided practice. Similarly, results from a qualitative study by Bengtsson and Carlson (2015), which investigated preceptor's educational needs, reported that nurses acknowledged their unpreparedness and their desire to be taught different teaching strategies including how to best demonstrate clinical skills to ensure students achieve their learning goals. In fact, limited understanding of students' learning goals has also been perceived as a significant barrier to effective clinical supervision in hospital settings by other health professions such as allied health (Edgar & Connaughton 2014; Maloney et al. 2013).

The item 'Conduct a variety of education activities (demonstrations, guided practice, tutorials)'was designed to evaluate nurses' perceived knowledge of effective clinical supervision in relation to their ability to support students through the use of demonstrations, guided practice and tutorials (HWA 2010).However, the opportunities to conduct tutorials and demonstrations may not be practical. Most nurses who supervise students take a full clinical load, and creating a balance between patient care

and students' learning becomes a challenge (Walker et al. 2008). As a result, most skill demonstrations are done subconsciously through role modelling. Consequently, nurses are not aware that they are already demonstrating skills and guiding the students' practice while they are providing nursing care to patients. Therefore, this lack of awareness shows that nurses require education about clinical supervision so that they are aware that the students are watching them at all times. Therefore, they must work slowly and allow the student to observe and ask questions. Clinical skills can only be mastered by performing tasks, so students must be afforded guided practice on real patients and time must be provided for return demonstrations to validate learning.

However, given that students are often enrolled at different education institutions and are at different levels of their enrolment, nurses face the constant challenge of adapting their teaching styles to meet different students' learning objectives and styles. There is no consensus among universities regarding clinical learning goals and assessment criteria for each level of enrolment. Hence, nurses may not be aware of the requirements of each educational institution (Ford et al. 2016).

Overall, the participants' responses reflected higher skills scores than knowledge scores for most individual items, especially 'Identify and articulate to the students the boundaries of our respective roles and relationships'. This result confirmed that nurses attend to the protector role more frequently compared with other roles (as found by Omer et al. 2016), as they focus on ensuring that students work according to policies, procedures and guidelines. It can be assumed that nurses perceived themselves as skilled because they are clinical experts who are assigned to supervise students on a regular basis. However, they view themselves as not possessing the scientific knowledge about their responsibilities as clinical supervisors as they are not trained for the role (Brammer 2008; HWA 2010; Omansky 2010) and there is no prerequisite knowledge or skill set required for undertaking it (ANMAC 2016). Therefore, it can be considered reasonable for nurses to perceive themselves as lacking the required knowledge to supervise students from a diverse range of education institutions. This finding strongly suggests that the preparation and training for clinical supervision should focus on specific knowledge and skill sets over clinical expertise (Bearman et al. 2018; Henderson & Eaton 2013).

5.2.1.2. Knowledge and skills of problem-solving

The evaluation of the nurses' perceptions of their knowledge and skills regarding solving problems about student learning showed mixed perceptions across the 10 items in this subscale. Interestingly, there was a variation between knowledge and skills scores. The highest knowledge scores were for the item 'Effectively guide and support the student's patient care performance, including dealing with mistakes', while the highest skill scores were for the item 'Seek support from senior staff to help resolve challenging situations in the clinical placement'. This item received the highest score among all items within the subscale of problem-solving.

These results demonstrated that nurses are committed to the role of supporting students and to protecting patients from healthcare errors, as has been alluded to in previous quantitative and qualitative studies (Cloete & Jeggels 2014; Ford et al. 2016; Jokelainen, et al. 2013; O'Brien et al. 2014; Omer et al. 2016). While nurses were found to be highly supportive of students, they acknowledged that they experienced difficulty with supporting students who lacked motivation, interest in and commitment to direct patient care and who were not able to articulate their learning goals (Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014; O'Brien et al. 2014). Additionally, a qualitative study by Walker et al. (2008), which explored nurses' experiences of being a buddy nurse, identified that nurses struggle to maintain a balance between teaching students and providing patient care. The nurses reported that an increased workload due to staff absences, high patient acuity, fast-paced patient flow and a lack of resources left them feeling overstretched with patient care activities (McCarthy & Murphy 2010, p. 239). As a result, while nurses could be guiding and supporting students, they prioritise patient care (Madhavanpraphakaran et al. 2014). It is evident from past research that nurses feel that 'there is too much to do to have to worry about students' (Aghamohammadi-Kalkhoran et al. 2011, p. 479). This is could be attributed to time constraints due to competing clinical demands (Ford et al. 2016; McCarthy & Murphy 2010; Haitana & Bland 2011; Madhavanpraphakaran et al. 2014; Parvin et al. 2016).

If nurses possessed the knowledge required for dealing with students' errors, this might facilitate a shift from perceiving the students as a risk to patients to perceiving them as someone who is there to learn from their mistakes (Jokelainen et al. 2013). This finding implies that nurses might be undermining their clinical supervision roles of facilitating,

educating, supporting, modelling and encouraging students to actively participate in patient care by focusing solely on mitigating mistakes. As a result, the nurses adopt the role of gatekeeper, as they are unable to allow students to practice independently under their supervision. This creates a barrier to student learning (Brammer 2008; Haitana & Bland 2011).

These findings were supported by a descriptive and comparative study by Omer et al. (2016) that compared the similarities and differences between nurses' perceptions of their clinical supervision roles and responsibilities, in which nurses rated their role as a protector as the most important and frequently attended role. This protector role was to save students from making errors that could harm patients. Although it is important to protect patients and students (Chuan & Barnett 2012; Hilli et al. 2014), nurses tend to be over-protective at times, such that learning opportunities are missed.

Within the subscale of problem-solving, the item 'Seek support from senior staff to help resolve challenging situations in the clinical placement' received the highest score for skills and the highest combined score across items for both knowledge and skills. These results reflected a professional practice embedded within the nursing standards of practice, in which nurses are encouraged to escalate difficult issues to their seniors as a means of risk and conflict management (ANMAC 2016; Haitana & Bland 2011; Maloney et al. 2013). While issue escalation reflects transparency and accountability, it could also signify a fear of liability. Past research has reported that nurses found it difficult to give students objective negative feedback or to fails students as they feared not getting managerial support with these decisions (McCarthy & Murphy 2010; Madhavanpraphakaran et al. 2014; O'Brien et al. 2014; Walker et al. 2008).

Another inference from these results could be that nurses lack confidence in supervising students with challenging behaviours and hence escalate difficult issues to seniors rather than try to solve them themselves (McCarthy & Murphy 2010). This lack of commitment could also be attributed to the misconception that students belong to the education institution, leading to the belief that it not the nurses' responsibility to deal with challenging situations pertaining to the students (Aghamohammadi-Kalkhoran et al. 2011; Madhavanpraphakaran et al. 2014). Based on these results, it is reasonable to suggest that education institutions and health service organisation managers take a collaborative approach to developing strategies to support nurses who supervise students

to enhance their commitment to the role. Previous studies identified that there is an association between management support and commitment to the clinical supervision role (Cloete & Jeggels 2014; McCarthy & Murphy 2010).

In contrast, the lowest knowledge and skill scores for problem-solving were found for the items seven and nine 'Identify and use a range of approaches to resolve conflict within the clinical supervision relationship 'and 'Identify issues regarding the student, their supervision or workplace, which may put the student at risk of failing' respectively. These results contradict the result that nurses have knowledge and skills in developing positive and effective relationships with students as indicated in the subscale for facilitating learning. Instead, these results indicate the reason why nurses tend to seek support from seniors to resolve challenging situations. These results imply that nurses find it difficult to establish professional working relationships with some students. A qualitative study by Haitana and Bland (2011), which examined nurses' thoughts and attitudes towards supervising students, reported that establishing a professional working relationship with a student was considered the most important element of effective supervision. However, this study results indicated that nurses may not be well equipped to develop trusting relationships with students as they find it difficult to resolve conflict (Beal et al. 2012; Hutchinson & Purcell 2010).

Nurses are expected to have knowledge and skills required to identify and resolve conflict that might affect their ability to develop trusting relationships with students (Ford et al. 2016; Haitana & Bland 2011). Findings from past research emphasised that connecting with students in a manner that builds trust helps develop positive and meaningful nurse–student relationships. As a result, students can ask questions without fear, which enhances their learning in practice (Ford et al. 2016; Jokelainen et al. 2013; Levett-Jones et al. 2009). Poor relationships due to unresolved conflict have been found to negatively affect clinical learning and the acquisition of skills in practice (Levett-Jones et al. 2009; Parvin et al. 2016). Further, unresolved conflict contributes to why some nurses are reluctant to commit to the clinical supervision role (Haitana & Bland 2011). Based on these results, it is important to ensure that nurses are supported through relevant educational programs that teach clinical knowledge and skills based on various approaches to conflict resolution (Bearman et al. 2018). This would help nurses create

an environment conducive to learning and ultimately improve the overall clinical learning experience and outcome.

Consistent with the finding, that nurses find it difficult to establish positive relationships with the students, the item 'Identify issues regarding the student, their supervision or workplace, which may put the student at risk of failing' also received the lowest skills score. This result is in line with other research studies in which nurses acknowledged they were not aware of what the students were allowed and not allowed to do, their skill level, competencies and assessment requirements (Ford et al. 2016; McCarthy & Murphy 2010; Walker et al. 2008). The result reflected a disconnect between the nurse and the student and hence the nurses were not aware of students' curriculums. If meaningful relationships with shared goals were established, nurses would be aware of their students' levels of enrolment. The literature suggests that all nurses who supervise students in practice must be informed and kept updated about the students' learning needs (McCarthy & Murphy 2010).

5.2.1.3. Knowledge and skills in evaluating learning

The evaluation of nurses' perceptions of their knowledge and skills regarding evaluating student performance during clinical placements reflected mixed perceptions across the 11 items. The highest knowledge and skills scores were for the item 'Actively encourage the students to engage in critical dialogues about professional practice where they can question, reflect and discuss issues in a supportive environment'. These results demonstrated that the nurses were aware of their evaluator role and of the effectiveness of reflection in the assessment of adult learners, which is a finding supported by previous studies (Mackay et al. 2018). The use of critical reflection is highly recommended, as it enables students to formally review their learning outcomes, reflect on the learning experience and identify the professional and personal development they achieved during the experience (Fitzgerald et al. 2010).

The results of a phenomenological study conducted by Jokelainen et al. (2013), which examined nurses' perceptions regarding clinical facilitation, indicated that allowing students to reflect, ask questions and discuss issues in a supportive environment assisted students to develop skills in identifying their own strengths and weaknesses and hence in articulating their personal learning goals. However, the results of this study were

contrary to findings from a qualitative study undertaken by Bengtsson and Carlson (2015), in which the nurses indicated a desire for a greater understanding of self-assessment to help students realistically critique and analyse their own performances. Additionally, the nurses reported that the student evaluation process was time-consuming (Haitana & Bland 2011; Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014).

The results of this study implied that the nurses viewed students as unprepared for clinical tasks and hence required encouragement. This perspective is consistent with previous research investigations conducted in Iran, in which 67.14 per cent of nurses working with students indicated that they did not acquire sufficient clinical skills during their clinical placement due to a lack of motivation and hence required encouragement (Aghamohammadi-Kalkhoran et al. 2011). Nonetheless, allowing students to question, reflect and discuss issues in a supportive environment is a highly recommended strategy that enables students to link theory to practice.

It is notable that the lowest scores for knowledge and skills in this subscale were for different items. While the lowest knowledge scores were for the item 'Effectively manage the student who displays challenging behaviour', the lowest skill scores were for the item 'Negotiate with colleagues to develop a timetable and the space/equipment required for clinical placement'.

These results were consistent with past research in which nurses acknowledged their lack of confidence in supervising students with challenging behaviours and performance and life issues (Bengtsson & Carlson 2015). Instead, they preferred to work with students who were motivated and knowledgeable (Ford et al. 2016; Huybrecht et al. 2011; Madhavanpraphakaran et al. 2014; O'Brien et al. 2014; Rogan 2009). Dealing with unmotivated students was found to contribute to dissatisfaction with the clinical supervision role (O'Brien et al. 2014). This finding can be attributed to a lack of support from the education institution or a lack of critical thinking. A cross-sectional descriptive survey undertaken by Rogan (2009) revealed that the nurses wanted critical thinking and decision-making to be an essential component of their preparation for their clinical supervision role. Another inference from this result could be that nurses hold on to the misconception that students are not a part of the workforce; instead, responsibility for

them lies with the education institution's clinical facilitators as they are paid for the role (Aghamohammadi-Kalkhoran et al. 2011).

Within the same subscale of evaluating learning, the lowest skills scores were for the item 'Negotiate with colleagues to develop a timetable and the space/equipment required for the clinical placement'. This result reflected the necessity for a clinical supervision process in which time is allocated solely for supervision. The need for protected time for clinical supervision is well documented in the literature (Huybrecht et al. 2011; McCarthy & Murphy 2010). A lack of protected time was perceived as a significant barrier to effective clinical supervision (Madhavanpraphakaran et al. 2014; McCarthy & Murphy 2010). Further, given the unpredictability of the clinical environment, nurses are unlikely to find protected time for clinical supervision as patient care takes precedence over student supervision (Madhavanpraphakaran et al. 2014). As illustrated in previous studies (Mather et al. 2015; Omansky 2010; Walker et al. 2008), clinical supervision is mostly undertaken on ad hoc basis and nurses are assigned students on the basis of their availability on a rotating roster. Overall, the study results within this subscale revealed higher knowledge scores compared to skills scores for nine of the 11 items. Although the difference was not significant, it was interesting that nurses perceived themselves as having a lower level of skill compared to their knowledge. It can be inferred from these results that, while knowledge can be taught in a training program, skills can only be acquired through practice, hence the quest for concrete tools for supervision in practice (Bengtsson & Carlson 2015).

5.2.2. Association between nursing professional characteristics and clinical supervision knowledge and skills

It is reasonable to expect that nurses with greater experience and higher qualifications would report higher knowledge and skills related to clinical supervision. However, the present study found no significant difference or association between participants' knowledge and skills of clinical supervision with the number of years of clinical experience or working in the department. In addition, there were no significant differences in clinical supervision knowledge and skills scores among the nurses with a diploma-, bachelor- or masters-level qualification.

These findings suggested that clinical supervision requires a specific skill set, and it cannot be assumed that all experienced nurses are able to undertake this role. This view is supported by Horton et al. (2012), who concluded that clinical experience is a necessary, but not sufficient, condition for effective clinical supervision, as not all experienced nurses have the requisite clinical supervision knowledge and skills. Therefore, initial training and ongoing support are required to empower nurses to provide meaningful learning opportunities for students while they are on clinical placement.

Nonetheless, while nurses might be willing to share their knowledge and skills with students, many of their clinical role responsibilities were perceived to be a barrier to the role of supervision, making it difficult to maintain a balance between teaching students and providing patient care (Mather et al. 2015; Walker et al. 2008). These results are consistent with existing literature that demonstrates that clinical expertise does not automatically translate to effective clinical supervision (Brammer 2008; HWA 2010).

5.2.2.1. Educational qualifications

A nurse's level of qualification yielded no significant difference in regard to both knowledge and skills among those with a diploma, bachelor's degree or master's degree. This result suggested that a higher qualification, if not specific to clinical supervision, does not improve the level of knowledge and skills required for clinical supervision. Instead, the characteristics of patience, friendliness, humour and good interpersonal and communication skills are essential to being an effective clinical supervisor (Gleeson 2008). These results are supported by Martin et al. (2011), who identified that a clinical supervisor must know how to guide students in a clinical environment, which suggested the need for the specific clinical supervision training.

5.2.2.2. Impact of training on nurses' knowledge and skills of clinical supervision

A key finding of this study was that nurses who had completed training specific to clinical supervision reported higher knowledge and skills in this area. Specifically, nurses who had completed hospital-based clinical supervision, in-service training or formal clinical supervision training such as the Certificate IV in Workplace and Assessment had a significantly higher level of knowledge and skills regarding clinical

supervision compared with those had no training. These findings suggested that training programs focusing on clinical supervision offer opportunities for nurses to develop and integrate the specific knowledge and skills required for effective clinical supervision. This finding confirms evidence from prior studies that showed that hospital-based training programs improved nurses' clinical supervision skills and their knowledge of clinical teaching (Madhavanpraphakaran et al. 2014; Smedley et al. 2010).

In line with the current literature, the results of this study affirmed that, aside from what was taught during their bachelor's degrees, most nurses who work with students at the bedside do not have further training specific to the role of clinical supervision (Brammer 2008; Omansky 2010). In this study, only 10 per cent of the participants had received formal clinical supervision training and 36.6% had not received any training in this area. Previous studies indicated that nurses who supervise students are chosen based on availability (Ford et al. 2016). This decision is made with the inaccurate assumption that, because of their experience, nurses working with students at the bedside should have appropriate knowledge and skills to model what they practice, and they are expected to be able to effectively supervise students in their areas of speciality (Chuan & Barnett 2012). However, most nurses may lack some knowledge or skill to perform the role.

It is evident that having clinical expertise does not automatically translate to being an effective clinical supervisor (Brammer 2008; HWA 2010). In fact, it is well documented in multidisciplinary health service literature, including that regarding nursing, that clinicians are not trained for the clinical supervisor role (Mackay et al. 2018; Omansky 2010; Strand et al. 2015), and some have professed that 'I have not been educated to be a teacher, nor do I have any knowledge and interest in being a teacher' (Bearman et al. 2018, p.30). Therefore, it can be argued that nurses' basic skills in the clinical supervision of students should be further developed through regular educational updates via hospital-based in-service training programs (McCarthy & Murphy 2010).

In-service training is often used as a professional development tool to keep practitioners abreast of current practices in their profession. The results of this study demonstrated that formal training alone is insufficient and continuous in-service training is important to update and maintain the nurses' knowledge and skills. This is supported by the results of a study by Phin (2014), in which 90 per cent of teachers judged in-service training as

important because it increased their knowledge and skills and boosted their confidence. In fact, previous research studies have highlighted that nurses working with students expressed the necessity for regular educational updates, with in-service training being an effective tool for acquiring new teaching methods (McCarthy & Murphy 2010; Phin 2014).

Although it was not a significant result, nurses who hold a formal clinical supervision training qualification had a higher level of knowledge and skills than those who had no clinical supervision training. It could be postulated that when nurses obtain higher qualifications they also move into higher positions, which takes them away from the bedside. In addition, formal clinical supervision training programs have been found to be difficult, sometimes beyond the participants' comprehension, and two-day workshops too short to obtain an adequate understanding of the clinical supervision role (McCarthy & Murphy 2010). Further, formal clinical supervision training programs have been criticised for being more theoretical than practical (Chang et al. 2015) and thus not meeting the nurses' needs. This study provides empirical evidence that the provision of hospital-based in-service clinical supervision training programs is an effective strategy that can assist nurses to develop the essential knowledge and skills for this pivotal role. It is a strategy fit for a current purpose, providing necessary knowledge and skills for immediate use.

5.3. Implications of the Results and Recommendations

The study results demonstrated that the provision of in-service clinical supervision training programs is a strategy that can assist bedside nurses to develop essential knowledge about and skills for supervising nursing students in practice. The results also demonstrated that it cannot be assumed that nurses have the appropriate knowledge and skills for supervising students in practice. Regardless of the health discipline, a clinical supervisor requires a specific skill set beyond their clinical expertise (Edgar & Connaughton 2014; HWA 2010). Clinical expertise does not automatically translate to effective clinical supervision (Brammer 2008; Edgar & Connaughton 2014; HWA 2010). Therefore, the provision of a hospital-based in-service training program is strongly recommended for all nurses working with students at the patient's bedside.

A comparison between the knowledge and skills scores within individual items showed that some items had higher knowledge scores than skills scores and vice versa, however scores were moderately high (≥ 3.5). Given that the students were from different education institutions and at different levels of their enrolment, this result could mean that nurses were not well informed about the students' different learning objectives. A further explanation could be that the skills scores were higher for regularly practised tasks, regardless of whether the nurse understood the purpose behind them. Therefore, it is also recommended that health service managers provide opportunities for nurses to practice what they have learned in the hospital-based in-service training programs.

5.4. Recommendations for Education

Based on the implications of these results, it is recommended that the universities and health service providers develop effective communication channels regarding the clinical supervision of students. It is recommended that information regarding students should be widely disseminated to include the nurses who work with students at the bedside. Nurses who supervise students must be informed about each student's specific clinical learning objectives and level of enrolment. Given that the clinical environment is dynamic and unpredictable with so many competing priorities, and nurses work with students from various educational institutions, it is recommended that AMNAC and/or NMBA come up with mandatory set of clinical placement objectives for each level of student's enrolment rather than just hours. This would compel universities to include these in their curriculum. As a result bring about some consistency regarding students' clinical learning. This would avoid confusion for the nurses as they supervise students from various universities; hence mitigate the challenges associated with deciphering different expectations from different universities.

At the same time the health service managers should be mandated to ensure the information about student's clinical placement is disseminated to all the nurses who supervise students. The study showed a significant association between the nurses' knowledge and skills and whether they have undertaken a hospital-based in-service clinical supervision training program, therefore, it is recommended to encourage standardisation of the content for in-service clinical supervision training programs based on student's learning needs. It also recommended that managers are aware of the level

of support that nurses require when undertaking clinical supervision role. Training has been proven to increase supervisors' ability and confidence (Bengtsson & Carlson 2015). Therefore it is recommended that mangers consider the benefits of investing in education for nurse supervisors against future consequences of having new graduates who are not ready to enter the workforce. To cut costs on training health service providers are encouraged to use different teaching/training methods such as providing written material, face to face workshops and courses, self-directed packages and online modules. However currently there is no standard clinical training program in NSW. Hospitals tend to develop their own known as preceptor courses. It is also recommended that students must be prepared for clinical placement and able to articulate their own learning objectives. Nonetheless, expectations from both the university and health service providers should be well communicated to all stakeholders, including the students.

Health service providers are encouraged to adopt and incorporate ideas from established contemporary clinical supervision training programs such as the preceptorship program in NSW (Smedley et al.2010), Art of clinical supervision in Western Australia (Russell et al 2011; Siggins Miller Consultants 2012); and the Mentorship program in the UK (NMC 2010) in their clinical supervision training programs.

Internationally, nurses who supervise students are trained and accredited for the role (Myall et al. 2008). For example in the UK clinical supervisors are trained and they are accredited to sign off students' clinical performance (NMC 2010). While each student is allocated to one staff member for the duration of their clinical placement, other nurses can also supervise the student. However; the sign off mentor should supervise the student for at least 40% of the students' final placement in the program. This model would be a challenge in Australia because clinical supervisors are not trained for the role and nurses work on rotating rosters and they are not accredited to sign off students. The university employed facilitators are responsible to sign off students' clinical performance at the end of their clinical placement.

5.5. Recommendations for Practice

It is strongly recommended that the university and health service providers consider these results and their implications for policy and evaluate the effectiveness of their

current strategies regarding clinical supervision. A collaborative approach between the university and health service providers is recommended as they develop sustainable strategies to prepare and provide continuous support to nurses undertaking this role. These stakeholders should ensure clinical supervision training programs provide nurses with regular updates regarding students' clinical education learning goals. Collaboration and partnership have been shown to enhance the success of the clinical placement experience in nursing (Cloete & Jeggels 2014). It is also recommended that clinical supervision training become a mandatory prerequisite for undertaking the clinical supervision role. However, while this can be costly to have staff off the ward to attend education programs, it is also important to consider the long term benefits of effective clinical supervision. When students are supervised by nurses who are trained and have appropriate clinical supervision skill set, there is high probability that when students graduate, they will be equipped with relevant skills knowledge and attitudes which make them safe and competent clinicians when they enter the workforce.

In addition to the involvement of the key stakeholders and the development of in-service clinical supervision training programs, it is recommended that the health service providers consider developing clinical supervision nurse champions who will act as a support and ongoing resource for their peers within their department as a way to sustain best practice (White & Antonio 2011). Identifying nurse champions in each department would help to orientate the other nurses towards the students' clinical learning needs through role modelling, ongoing peer-to-peer support and interpersonal contact, hence potentially influencing colleagues to develop their interest, knowledge and skills to undertake this role effectively.

It is also recommended that, as part of the nurses' professional development, managers encourage the use of nurse champions to ensure nurses are equipped with the appropriate knowledge and skills for the role. This will ensure the maintenance and sustainability of appropriate knowledge and skills regarding clinical supervision. Recognition and the provision of continuous support from both the university and health service providers are recommended as an ongoing strategy to improve registered nurses' knowledge and skills.

5.6. Recommendations for Future Research

It is anticipated that the results of this study will add to the existing knowledge about what constitutes a quality clinical placement experience for nursing students. The study highlighted the areas that require further research in relation to preparing nurses for the role of supervising students during clinical placement. A clinical supervision training program that is a joint activity between the university and health service providers would provide a guide for nurses who supervise students in the future. This would be in line with the findings of Cloete and Jeggels (2014), who concluded that a collaborative partnership is imperative to the success of clinical supervision.

It is only through effective supervised clinical placements that students are able to learn clinical skills for real-life situations (Gleeson 2008; Smedley et al. 2010). Therefore, an understanding of the factors that influence nurses' knowledge and skills regarding clinical supervision is paramount. The results of this study will guide the university and health service providers in designing collaborative strategies for preparing nurses for the role. Ultimately, effective clinical supervision must be offered to the students to ensure that the future graduates are clinically competent and ready to provide safe and quality care to the community when they enter the workforce (Courtney-Pratt et al. 2012; Creedon & Cummins 2012).

It is highly recommended that this quantitative study is complemented by qualitative research to provide an in-depth understanding of this indispensable aspect of nursing education. Generalisations proposed by this study should be investigated by future research that includes other geographic regions of Australia. It is highly recommended that all universities requiring nurses to support students undertake research to determine the effectiveness of their own training programs in preparing the nurses for the role of clinical supervision. Further, universities are encouraged to develop strategies that provide ongoing support and education to nurses. Such studies would contribute to the data on contextual differences and the effect of nurses' clinical supervision education on future nurses. An in-depth inquiry using mixed methods that is collaboratively conducted by universities and health service providers would bring some insight into the factors that can improve clinical placement outcomes for future nurses.

5.7. Strengths and limitations of the Study

Like any other study, this study has strengths and limitations. First, it is the only study in the field to investigate the nurses' perceptions of their knowledge and skills towards supervising students during clinical placement in hospital settings. The evidence from this study has provided a foundation for further exploration of this subject.

In addition, data were collected using the mCSAT which was designed to assess the nurses' knowledge and skills regarding clinical supervision of students. The mCSAT is a validated- 30 item questionnaire that is psychometrically sound and easy to self-administer. The Cronbach's alpha values ranged from 0.93 to 0.96 and from 0.95 to 0.96 for the mCSAT-Knowledge and mCSAT-Skill respectively (Chigavazira et al.2018). The use of a reliable and valid instrument ensured that the results were representative. In addition using the mCSAT was easier to communicate the results and enable the comparison of the results with future studies using the mCSAT.

However, despite these strengths, the study had some design parameters (as described in Chapter 3), that caused some limitations, including its context of metropolitan tertiary referral and teaching hospital. First, the use of a single site might imply that only local needs were addressed. This limits the generalisation of the study results (Gerrish & Lathlean 2015; Houghton et al. 2012). Replication of the study in other geographical regions is recommended to determine whether these conclusions can be generalised to different populations defined by such parameters as location, type of facility and demographic features.

Second, the study used a convenient sampling technique, which meant that only the nurses available at the time of data collection participated in the study. Therefore, this study suffered some selection bias (Etikan et al. 2016). However, given that the population of nurses was generally homogeneous, the technique was easy, affordable and participants were readily accessible. It was considered the most appropriate method for this study, as it was conducted by a student researcher within a specified period of enrolment.

Third, the study used a self-administered questionnaire, thus relying on self-reported responses. Therefore, the responses might have been influenced by social desirability

bias. However, efforts were made to minimise that effect, such as ensuring that participants' responses were anonymous (Grimm 2010). Further, the questionnaire comprised 30 items divided into three subsections. Given that nurses were asked to complete the questionnaire in addition to their usual workload, it is likely that the length of the tool combined with the competing interests of the participants would have limited the response rate. Although, the participants were provided with protected time during their in-service scheduled time to complete the questionnaire, the response rate was only 58%. This response rate is in line with response rate for nursing studies that has been reported in the literature (Corner & Lemonde 2019.

Replication of this study using probability techniques to recruit participants from multiple sites across the whole local health district or across states would deepen understanding of the issue and enhance the validity of the results. Given that the researcher was a student, the study had to be limited to the student's period of enrolment. The generalisations proposed by this study should be investigated by future research. It will be beneficial to conduct an in-depth inquiry by combining both quantitative and qualitative methods and collecting data from multiple sites.

Nevertheless, the study provided significant evidence of the nurses' perceptions of their knowledge and skills regarding the supervision of students. The findings can be used to guide the universities and health service providers in the development of appropriate strategies to improve the knowledge and skills of the nurses who supervise students during clinical placement in practice.

5.8. Summary

This chapter discussed the results of the study, which was conducted to investigate nurses' perceptions of their knowledge and skills regarding the clinical supervision of nursing students in a hospital setting during their clinical placement and to identify the association between their knowledge, skills and professional characteristics. The implications of the study results and recommendations for nursing education, practice, policy and further research were highlighted. Finally, the chapter highlighted the limitations and strengths of the study. The thesis summary will be outlined in Chapter 6.

Chapter 6. Summary and Conclusion

6.1. Introduction

This chapter presents the summary of the study, which was undertaken by a Master of Philosophy candidate to investigate nurses' perceptions of their knowledge and skills regarding the clinical supervision of students on placement in hospital settings. As nursing education is now undertaken at education institutions, work experience, also known as clinical placement, has become a mandatory prerequisite component in student training programs (Levett-Jones & Bourgeois 2014; Birks et al. 2017; Brynildsen et al. 2014). Students must complete a stipulated number of hours of clinical placement under the direct supervision of nurses to be eligible for registration to practice with a health service provider (ANMAC 2016).

The literature highlighted that a student's clinical placement experience is strongly linked to the supervising nurses' knowledge and skills and their relationship with the student. Further, students interact more frequently and spend more time with nurses than with their clinical facilitators. This is because nurses are the predominant providers of direct one-to-one supervision as they work with students at the point of care throughout their shifts. Conversely, clinical facilitators interact with students at intervals during their shifts as they are required to divide their time across an average of eight students in different wards. As a result, nurses have a greater influence on students' ability to acquire clinical knowledge and skills to manage real-life situations (Newton et al. 2009). Therefore, this quantitative descriptive study sought to investigate the nurses' perceptions of their knowledge and skills regarding clinical supervision and to identify the association of their knowledge and skills with their professional attributes. The chapter presents the conclusion of the study and states the declaration regarding conflict of interest.

6.2. Thesis Summary

Chapter 1 described how nurses working at the bedside play the pivotal and indispensable role of supervising students in practice. Nurses are the predominant providers of direct clinical supervision of students, regardless of the model of clinical

supervision used in that setting (Bennett & McGowan 2014; Briffa & Porter 2013; Brynildsen et al. 2014; Cloete & Jeggels 2014; Fairbrother et al. 2016; Smedley et al 2010).

As outlined in Chapter 2, which presented the scoping review into nurses' experiences of supervising students, empirical evidence regarding nurses' perspectives of their own knowledge and skills regarding clinical supervision of students was scarce, with only one study having explored this area (Ford et al. 2016). The gap identified through this scoping review underpinned the development of the study question and guided the choice of research design to investigate the nurses' perceptions of their knowledge and skills regarding supervising students in hospital settings.

Chapter 3 presented the descriptive research design used in the study. The design was described in detail to ensure the objectives of the study were achieved. The study was conducted on participants from a single tertiary metropolitan hospital in NSW, Australia. The data were collected from a convenience sample of nurses (n = 232) using a validated self-administered questionnaire. SPSS version 22 was used for data analysis.

Chapter 4 presented the results of this quantitative descriptive study. Descriptive statistics were used to present the results in tables and figures that clearly explained the participants' perceptions of their knowledge and skills regarding supervising students in hospital settings. There was a significant relationship between professional attributes and the nurses' knowledge and skills regarding the clinical supervision of pre-registration nursing students in practice.

The results of the study demonstrated that nurses who supervise students have moderately high levels of knowledge and skills for performing the clinical supervision tasks. In addition, nurses who had undertaken clinical supervision training had significantly higher clinical supervision knowledge and skill scores than those who had not completed any training. However, formal clinical supervision training is not a prerequisite for undertaking the clinical supervision role in hospital settings. This therefore highlight the need for more supervision training, as health service providers are left to design their own training in the form of in-service programs (HWA 2010). There is no criterion for this set by the nursing regulatory bodies. However, it was evident that nurses who had attended clinical supervision in-service programs had

significantly higher knowledge and skills regarding clinical supervision. In comparison, the mean mCSAT—Knowledge and mCSAT-Skills scores were significantly higher for nurses who had completed a hospital-based in-service program compared with those who had not undergone any training and those who had received formal training (see results in Chapter 4).

Chapter 5, the discussion chapter, explored the implications of the study's results in the context of previous studies. The implications for nursing education, policy and practice and recommendations for future research were highlighted in this chapter. It is expected that the results of this study will provide a substantial contribution to the development of strategies for the clinical supervision training of nurses who supervise students in practice. A collaborative approach between universities and health service providers was recommended as the best strategy for preparing nurses for the role. It is anticipated that the involvement of all stakeholders in the collaborative approach will have a positive effect on the relationship between the universities and health service providers and hence enhance the working relationship between the nurses and students. Further, a consensus among universities regarding the students' clinical learning objectives was also recommended. It was recommended that health service providers identify and develop clinical supervision champions to improve support for the nurses who supervise students at the bedside (White & Antonio 2011).

6.3. Conclusion

This final chapter presented the summary of the study. The summary articulated the background of the study, the literature review findings, the study's design and results and the discussion of the results. The chapter stated the implications of the results for nursing education practice and policy and suggested areas for future research. Finally, recommendations for all stakeholders involved in the clinical supervision of students were articulated.

6.4. Conflict of Interest

The researchers have no known conflict of interest. Funding to undertake this study was received from the University Of Wollongong School Of Nursing and the SWSLHD.

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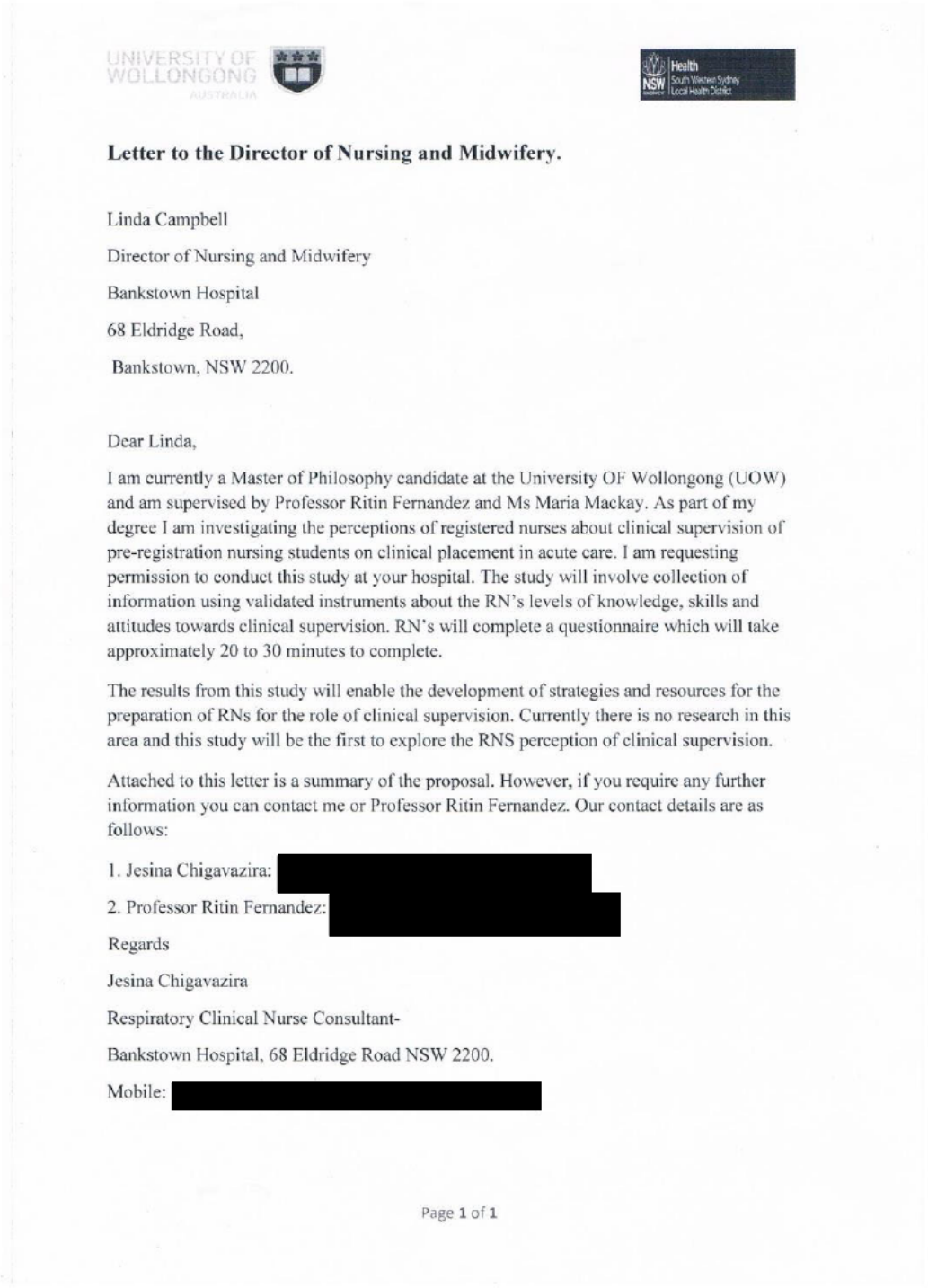
Appendices

Appendix A: Letter to the Director of Nursing and Midwifery Services



Letter to the Director of Nursing and Midwifery.

Linda Campbell

Director of Nursing and Midwifery

Bankstown Hospital

68 Eldridge Road,

Bankstown, NSW 2200.

Dear Linda,

I am currently a Master of Philosophy candidate at the University OF Wollongong (UOW) and am supervised by Professor Ritin Fernandez and Ms Maria Mackay. As part of my degree I am investigating the perceptions of registered nurses about clinical supervision of pre-registration nursing students on clinical placement in acute care. I am requesting permission to conduct this study at your hospital. The study will involve collection of information using validated instruments about the RN's levels of knowledge, skills and attitudes towards clinical supervision. RN's will complete a questionnaire which will take approximately 20 to 30 minutes to complete.

The results from this study will enable the development of strategies and resources for the preparation of RNs for the role of clinical supervision. Currently there is no research in this area and this study will be the first to explore the RNS perception of clinical supervision.

Attached to this letter is a summary of the proposal. However, if you require any further information you can contact me or Professor Ritin Fernandez. Our contact details are as follows:

1. Jesina Chigavazira: [redacted]

2. Professor Ritin Fernandez: [redacted]

Regards

Jesina Chigavazira

Respiratory Clinical Nurse Consultant-

Bankstown Hospital, 68 Eldridge Road NSW 2200.

Mobile: [redacted]

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Appendix B: Participant Information Sheet/Consent Form

Participant Information Sheet/Consent Form

Non-Interventional Study - Adult providing own consent	
Title:	Registered nurses 'perceived knowledge, skills, and attitudes towards clinical supervision of pre-registration nursing students on clinical placement
Short Title:	RN's knowledge, skills and attitudes towards clinical supervision of students.
Protocol Number:	LNR/===/BNK/===
Project Sponsor:	University of Wollongong
Coordinating Principal Investigator:	Professor Ritin Fernandez
Principal Investigator:	Jesina Chigavazira

Part 1: What does my participation involve?
You are invited to participate in this research project to find out the perspectives of Registered Nurses regarding their knowledge, skill and attitudes towards clinical supervision of pre-registration nursing students during clinical placement. You are invited because you are a registered nurse who supervises pre-registration nursing students during their clinical placement.

1. Introduction
This participant information sheet tells you about the research, so you can make an informed decision about whether you would like to take part in the study or not. Please read this information carefully, ask questions about any anything you do not understand about the study or if you would like to know more before you decide and during the process .Please note participation in this study is voluntary; if you wish not to participate you can withdraw at any stage. You are be given this information sheet to keep.

2. What is the purpose of this research?
This research has been initiated by Jesina Chigavazira and will be used by Jesina Chigavazira to obtain a Master of Philosophy degree. The study is being conducted by Jesina Chigavazira under the supervision of Professor Ritin Fernandez of UOW and Maria Mackay of UOW.

Results from this study will potentially provide the basis for future decisions on how to prepare the RNs for the role of clinical supervision. It will also make a significant contribution to the development and designing clinical supervision training programs which can be used to train RNs so that they become effective clinical supervisors. It will also potentially enable the education providers and service providers develop collaborative strategies to improve clinical placement outcomes for the pre-registration nursing students so as to produce future nurses who are work ready.

3. What does participation in this research involve?
If you agree to participate you will be asked to complete an anonymous paper-based questionnaire just once and put the completed form the "ballot –like drop box" provided. The

questionnaire comprises of 3 parts, Part A your demographics, Part B questions related to knowledge, and skills and, Part C questions related to your attitude towards clinical supervision. It is anticipated that the questionnaire will take 20-30 minutes to complete. You will be given time to complete the questionnaire during the in-service, and ward meetings, or you can choose to do it at your own time at home, just remember to put your response in the drop-box when you are done. Returning your completed questionnaire will confirm your consent to participate.

4. What do I have to do?
You have to complete the anonymous questionnaire. Assistance from the CNE is available if required.

5. Other relevant information about the research project
This study is conducted at Bankstown Lidcombe Hospital once only.

6. Do I have to take part in this research project?
Participation in any research project is voluntary. If you do not wish to take part, you do not have to. If you decide to take part and later change your mind, you are free to withdraw from the project at any stage.

7. What are the possible benefits of taking part?
There will be no clear benefit to you from participation in this research, however possible benefits may include; provision of essential data for evaluation and planning of collaborative clinical supervision strategies between the education providers and service providers, provision information for future decisions on how to prepare the RNs for the role of clinical supervision and improvement of nursing practice through effective clinical placement strategies.

8. What are the possible risks and disadvantages of taking part?
The foreseeable risk is negligible, no more than inconvenience by asking for your time to complete the questionnaire in case of emotional distress counselling will be provided.

Part 2: How is the research project being conducted?

9. What will happen to information about me?
This is an anonymous study there is no identifiable features and information you give will be used for this project only. It is anticipated that the results of this research project will be published and/or presented in a variety of forums. In any publication and/or presentation, information will be provided in such a way that you cannot be identified, personal identity will not be required for the study. No names should be written on the questionnaire or anything which can make your information identifiable.

Any identifiable information will be shredded immediately and those responses excluded from the data analysis. All paper documents will be kept in a secure and locked cupboard at the research centre, while electronic data will be kept under password protected database on the research centre network till the end of the study. After the research study, all data will be kept at the University of Wollongong Research Centre in a locked, secure and retrievable form for a minimum of five years. After 5 years all documents will be shredded and destroyed according to the Research code of Practice and data management policy _December 2011.

10. Who is organising and funding the research?
This research project is being conducted by Jesina Chigavazira under the supervision of Professor Ritin Fernandez and Maria Mackay of the University of Wollongong. No member of the research team will receive a personal financial benefit from your involvement in this research project (other than their ordinary wages).

11. Who has reviewed the research project?
The research has been reviewed by two experts at the University of Wollongong.

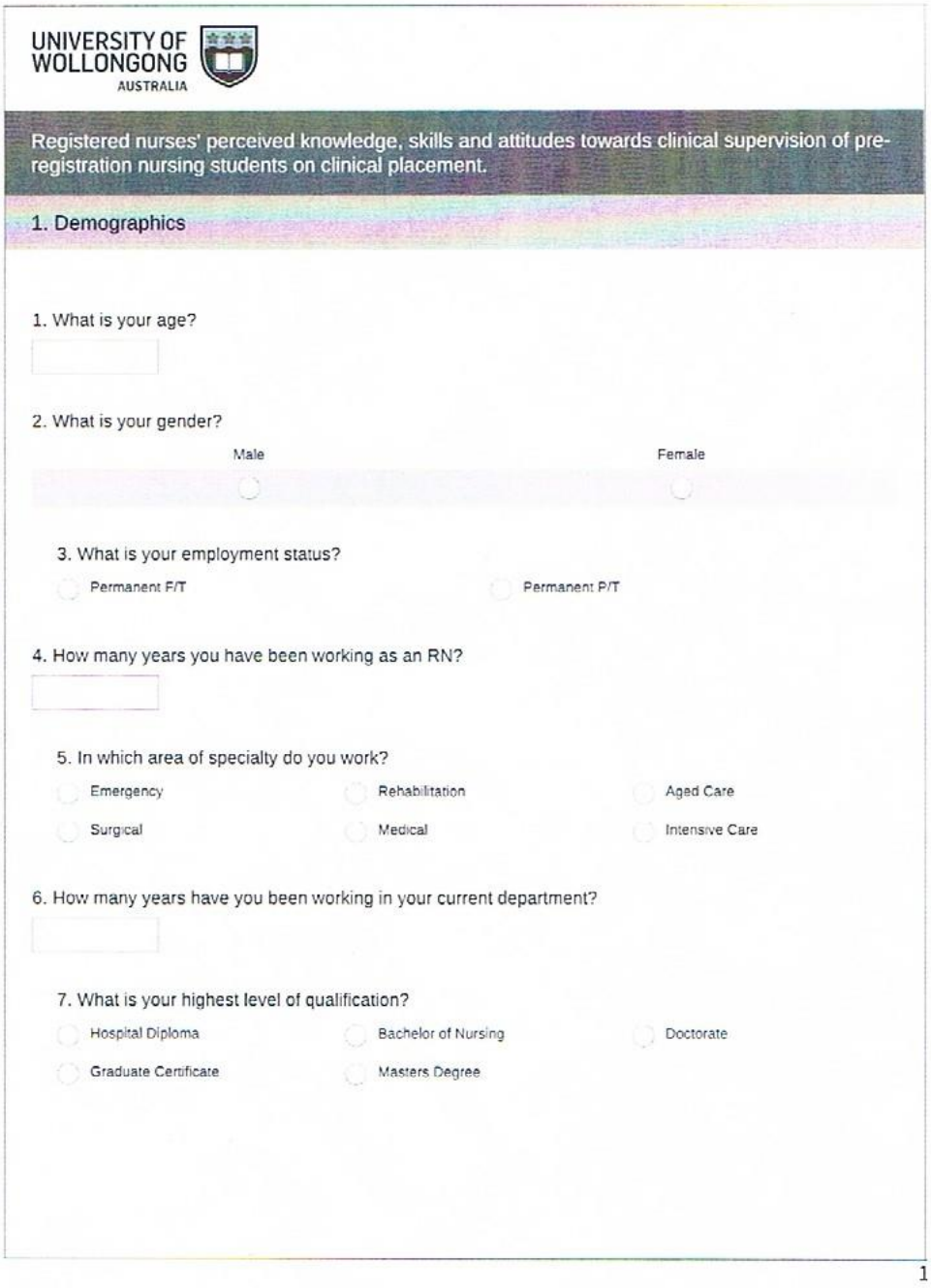
12. Further information and who to contact?
The person you may need to contact will depend on the nature of your query.

If you want any further information concerning this project you may contact the investigator, contacted details as indicated below.
Clinical contact person

Name	Jesina Chigavazira
Position	Clinical Nurse Consultant
Telephone	[redacted]
Email	[redacted]

13. Complaints contact person?
This study has been approved by the South Western Sydney Local Health District Human Research Ethics Committee. Any person with concerns or complaints about the conduct of this study should contact the Research and Ethics Office, Locked Bag 7103, Liverpool BC NSW 1871 on 02 8738 8304 / fax 02 8738 8310 / email research.support@sswahs.nsw.gov.au, website: http://www.swslhd.nsw.gov.au/ethics/default.html and quote [(NNNNNNN)].

Appendix C: Questionnaire



UNIVERSITY OF WOLLONGONG
AUSTRALIA

Registered nurses' perceived knowledge, skills and attitudes towards clinical supervision of pre-registration nursing students on clinical placement.

1. Demographics

1. What is your age?

2. What is your gender?

Male Female

3. What is your employment status?

Permanent F/T Permanent P/T

4. How many years you have been working as an RN?

5. In which area of specialty do you work?

Emergency Rehabilitation Aged Care

Surgical Medical Intensive Care

6. How many years have you been working in your current department?

7. What is your highest level of qualification?

Hospital Diploma Bachelor of Nursing Doctorate

Graduate Certificate Masters Degree

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8. Have you previously worked with pre-registration nursing students on clinical placement?

- ○ No
- ○ Yes
- ○ If yes , please specify number of years

9. How many weeks per year would you supervise pre-registration nursing students on clinical placement? (weeks/year).

10. What clinical supervision training do you have?

- ○ None
- ○ In-service attendance only
- ○ Certificate IV in Workplace and Assessment
- ○ Preceptor Course
- ○ Post Graduate Certificate in clinical teaching
- ○ Clinical supervision as part of post graduate degree

2

UNIVERSITY OF WOLLONGONG
AUSTRALIA

Registered nurses' perceived knowledge, skills and attitudes towards clinical supervision of pre-registration nursing students on clinical placement.

2. Knowledge

Please indicate if you have the Knowledge to perform the clinical supervision tasks below. Tick the most appropriate response which applies to you

11. I have the ***knowledge*** to perform the following:

	Strongly Agree (SA)	Agree (A)	Undecided (UD)	Disagree (DA)	Strongly Disagree (SD)
1. Develop positive and effective relationships with students					
2. Develop a learning plan with the student that is manageable, realistic and appropriate for my clinical setting					
3. Identify and clearly articulate to the student the boundaries of our respective roles and relationship					
4. Conduct a variety of education activities (demonstrations, guided practice, tutorials) to achieve the learning goals for the clinical placement.					
5. Utilize learning opportunities effectively to support or extend the student appropriately as their capabilities develop.					
6. Develop a variety of strategies for assisting skill acquisition based on student goals and analysis of their learning needs.					
7. Provide a range of experiences so the student can effectively apply their theoretical knowledge to clinical practice.					
8. Use educational resources to facilitate learning effectively for individuals and groups.					
9. Provide consistently clear and constructive feedback including checking the student's understanding of my feedback.					
10. Adapt my methods for giving feedback to suit different preferences and learning styles					
11. Conclude the feedback session with agreed priorities and plan of action to improve student performance					
12. Actively encourage the student to engage in critical dialogue about professional practice where they can question, reflect and discuss issues in a supportive environment					
13. Incorporate activities to help the student identify their learning needs, analyse their progress and guide ongoing learning.					

	Strongly Agree (SA)	Agree (A)	Undecided (UD)	Disagree (DA)	Strongly Disagree (SD)
14. Evaluate the student's performance using standardised criteria or assessment tools					
15. Make recommendations with respect to how the student has met the objectives of the clinical placement.					
16. Adapt my teaching strategies to support different approaches to learning in a variety of settings.					
17. Identify issues regarding the student, heir supervision or workplace, which may put the student at risk of failing.					
18. Effectively guide and support the student's patient care performance, including dealing with mistakes.					
19. Effectively manage the student who displays challenging behaviour.					
20. Approach colleagues to discuss problems and develop strategies to resolve issues in the clinical placement.					
21. Use strategies developed in consultation with the student, education provider staff and managers, to effectively address issues contributing to at risk performance.					
22. Identify and use a range of approaches to resolve conflict within the clinical supervision relationship.					
23. Effectively manage my emotions and the emotions of others in interactions, even when tensions arise.					
24. Identify and act on any risks to patients /consumer, student and supervisor to ensure emotional, physical and psychological well being of all patients.					
25. Develop an approach to clinical supervision that is evidence based and grounded in educational principles.					
26. Identify opportunities to collaborate with colleagues to achieve the learning outcomes of the placement.					
27. Effectively manage the competing demands of my responsibilities to my patients, students and colleagues.					
28. Seek support from senior staff to help resolve challenging situations in the clinical placement.					
29. Negotiate with colleagues to develop a timetable and the space /equipment required for the clinical placement.					
30. Facilitate the student to acquire the skills required for professional practice in my setting.					

UNIVERSITY OF WOLLONGONG
AUSTRALIA

Registered nurses' perceived knowledge, skills and attitudes towards clinical supervision of pre-registration nursing students on clinical placement.

3. Skills

Please indicate if you have the Skills to perform the clinical supervision tasks below. Tick the most appropriate response which applies to you

12. I have the ***skills*** to perform the following:

	Strongly Agree (SA)	Agree (A)	Undecided (UD)	Disagree (DA)	Strongly Disagree (SD)
1. Develop positive and effective relationships with students					
2. Develop a learning plan with the student that is manageable, realistic and appropriate for my clinical setting					
3. Identify and clearly articulate to the student the boundaries of our respective roles and relationship					
4. .Conduct a variety of education activities (demonstrations, guided practice, tutorials) to achieve the learning goals for the clinical placement.					
5. Utilise learning opportunities effectively to support or extend the student appropriately as their capabilities develop.					
6. Develop a variety of strategies for assisting skill acquisition based on student goals and analysis of their learning needs.					
7. Provide a range of experiences so the student can effectively apply their theoretical knowledge to clinical practice.					
8. Use educational resources to facilitate learning effectively for individuals and groups.					
9. Provide consistently clear and constructive feedback including checking the student's understanding of my feedback.					
10. Adapt my methods for giving feedback to suit different preferences and learning styles					
11. Conclude the feedback session with agreed priorities and plan of action to improve student performance					
12. Actively encourage the student to engage in critical dialogue about professional practice where they can question, reflect and discuss issues in a supportive environment					
13. Incorporate activities to help the student identify their learning needs, analyse their progress and guide ongoing learning.					

	Strongly Agree (SA)	Agree (A)	Undecided (UD)	Disagree (DA)	Strongly Disagree (SD)
14. Evaluate the student's performance using standardised criteria or assessment tools					
15. Make recommendations with respect to how the student has met the objectives of the clinical placement.					
16. Adapt my teaching strategies to support different approaches to learning in a variety of settings.					
17. Identify issues regarding the student, heir supervision or workplace, which may put the student at risk of failing.					
18. Effectively guide and support the student's patient care performance, including dealing with mistakes.					
19. Effectively manage the student who displays challenging behaviour.					
20. Approach colleagues to discuss problems and develop strategies to resolve issues in the clinical placement.					
21. Use strategies developed in consultation with the student, education provider staff and managers, to effectively address issues contributing to at risk performance.					
22. Identify and use a range of approaches to resolve conflict within the clinical supervision relationship.					
23. Effectively manage my emotions and the emotions of others in interactions, even when tensions arise.					
24. Identify and act on any risks to patients /consumer, student and supervisor to ensure emotional, physical and psychological well being of all patients.					
25. Develop an approach to clinical supervision that is evidence based and grounded in educational principles.					
26. Identify opportunities to collaborate with colleagues to achieve the learning outcomes of the placement.					
27. Effectively manage the competing demands of my responsibilities to my patients, students and colleagues.					
28. Seek support from senior staff to help resolve challenging situations in the clinical placement.					
29. Negotiate with colleagues to develop a timetable and the space /equipment required for the clinical placement.					
30. Facilitate the student to acquire the skills required for professional practice in my setting.					

13. Please write any comments, suggestions or recommendations regarding clinical supervision of preregistration nursing students.

Thank you for completing the survey

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Appendix D: Ethics Approval

Health
South Western Sydney Local Health District
NSW GOVERNMENT

Research and Ethics Office
Leadership · Quality · Governance
Locked Bag 7103, LIVERPOOL BC, NSW, 1871
Phone: 02 8738 8304
Facsimile: 02 8738 8310
http://www.sswahs.nsw.gov.au/swslhd/ethics/default.html

South Western Sydney Local Health District acknowledges the traditional owners of this land.

5 August 2016

Ms Jesina Chigavazira
Respiratory
Bankstown Hospital

Dear Ms Chigavazira,

*****THIS LETTER CONSTITUTES ETHICAL APPROVAL ONLY. THIS RESEARCH PROJECT MUST NOT COMMENCE AT A SITE UNTIL SEPARATE AUTHORISATION FROM THE CHIEF EXECUTIVE OR DELEGATE OF THAT SITE HAS BEEN OBTAINED. ******

Project Title: **Registered nurses' perceived knowledge, skills, and attitudes towards clinical supervision of pre-registration nursing students on clinical placement.**
HREC Reference: **LNR/16/LPOOL/339**
SSA Reference: **LNRSSA/16/LPOOL/445**
Local Project Number: **HE16/174**

Thank you for your response dated 13 July 2016 to our request for further information dated 2 July 2016. This Human Research Ethics Committee is constituted and operates in accordance with the National Health and Medical Research Council's *National Statement on Ethical Conduct in Research Involving Humans* and the *CPMP/ICH Note for Guidance on Good Clinical Practice*.

I am pleased to advise that the Committee has granted ethical approval of the above project.

The following documentation has been reviewed and approved:

Document	Version	Date
Low and Negligible Risk (LNR) Application Form	AU/6/7F72610	30.05.2016
Protocol	2.0	08.07.2016
MASTER Participant Information Sheet	2.0	08.07.2016
Questionnaire	2.0	08.07.2016

Please ensure for all future documents submitted for review include a document version number, document date and page numbering.

Monitoring Requirements:
(National Statement Chapters 2.1 and 5.5)

- The Committee has classified this project as:

Low Risk

- Monitoring required for this study will be:
  - Submission of Annual Progress Reports with the first report due **5 August 2017 and annually thereafter for the duration of the approval period**

Approval is valid for the following site only:

- Bankstown-Lidcombe Hospital

Please note the following conditions of approval:

1. The Principal Investigator will immediately report anything which might warrant review of ethical approval of the project in the specified format, including:

- any serious or unexpected adverse events; and
- unforeseen events that might affect continued ethical acceptability of the project.

2. The Principal Investigator will report proposed changes to the research protocol, conduct of the research, or length of HREC approval to the HREC in the specified format, for review. For multi-centre studies, the Chief Investigator should submit to the Lead HREC and then send the amendment approval letter to the investigators at each sites so that they can notify their Research Governance Officer.

3. The Principal Investigator will inform the HREC, giving reasons, if the project is discontinued before the expected date of completion.

4. The Principal Investigator will provide an annual report to the HREC and at completion of the study in the specified format.

5. The Principal Investigator must reassure participants about confidentiality of the data.

6. Proposed changes to the personnel involved in the study are submitted to the HREC accompanied by a CV where applicable.

7. The Principal Investigator is responsible for ensuring the research project is conducted in line with relevant NSW Health, South Western Sydney Local Health District and Hospital policies available from: http://www.sswahs.nsw.gov.au/swslhd/ethics/policies.html

HREC approval is valid for (5) years. If the study is ongoing at the conclusion of the five year approval period, a full resubmission may be required. Ethics approval will continue during the re-approval process.

The South Western Sydney Local Health District Human Research Ethics Committee has been accredited by the NSW Ministry of Health to provide single ethical and scientific review of research proposals conducted within the NSW public health system and Victorian and Queensland Public Health Organisations participating in the Mutual Acceptance Scheme.

You are reminded that this letter constitutes ethical approval only. This research project must not commence at a site until separate authorisation from the Chief Executive or delegate of that site has been obtained. It is your responsibility to forward a copy of this letter together with any approved documents as enumerated above, to all site investigators for submission to the site's Research Governance Officer.

Should you have any queries about your project please contact **Annamarie D'Souza** on the telephone number listed above. The HREC Terms of Reference, Standard Operating Procedures, membership and standard forms are available from the SWSLHD website: *http://www.sswahs.nsw.gov.au/swslhd/ethics/default.html*

Please quote the Local HREC reference **HE16/174** in all correspondence. The HREC wishes you every success in your research

Yours faithfully

[redacted]

Annamarie D'Souza
on behalf of
Professor Jeremy Wilson
Chairperson, SWSLHD Human Research Ethics Committee

This HREC is constituted and operates in accordance with the National Health and Medical Research Council's (NHMRC) *National Statement on Ethical Conduct in Human Research (2007)*. The processes used by this HREC to review multi-centre research proposals have been certified by the National Health and Medical Research Council.

Appendix E: Site-Specific Authorisation

Health
South Western Sydney
Local Health District

Research and Ethics Office
Leadership · Quality · Governance
Locked Bag 7103, LIVERPOOL BC, NSW, 1871
Phone: 02 8738 8304
Facsimile: 02 8738 8310
http://www.sswahs.nsw.gov.au/swslhd/ethics/default.html

South Western Sydney Local Health District acknowledges the traditional owners of this land.

17 November 2016

Ms Jesina Chigavazira
Respiratory
Bankstown Hospital

Dear Ms Chigavazira,

Project Title: **Registered nurses' perceived knowledge, skills, and attitudes towards clinical supervision of pre-registration nursing students on clinical placement.**
HREC Reference: **LNR/16/LPOOL/339**
SSA Reference: **LNRSSA/16/LPOOL/445**
Local Project Number: **HE16/174**

SITE SPECIFIC AUTHORISATION

Thank you for your correspondence received 1 November 2016 in response to our request for further information dated 1 November 2016.

I am pleased to inform you that the Chief Executive has granted authorisation for this study to take place at the following site(s):

- Bankstown-Lidcombe Hospital

The following are authorised for use at the **Bankstown-Lidcombe Hospital** site:

	Master		Site Specific	
Document	**Version**	**Date**	**Version**	**Date**
Participant Information Sheet/Consent Form	2.0	08.07.2016	1.0	18.07.2016

The following conditions apply to this research project. These are additional to those conditions imposed by the Human Research Ethics Committee that granted ethical approval:

1. Proposed amendments to the research protocol or conduct of the research which may affect the ethical acceptability of the project, and which are submitted to the lead HREC for review, are copied to this office.
2. Proposed amendments to the research protocol or conduct of the research which may affect the ongoing site acceptability of the project, are to be submitted to this office.
3. Please note that you are responsible for making the necessary arrangements (e.g. identity pass and vaccine compliance as per NSW Health Policy Directive PD2011_005) for any researcher who is not employed by the South Western Sydney Local Health District and is conducting the research on-site.
4. The Principal Investigator is responsible for ensuring the research project is conducted in line with relevant NSW Health, South Western Sydney Local Health District and Hospital policies available from: http://www.sswahs.nsw.gov.au/swslhd/ethics/policies.html
5. Proposed changes to the personnel involved in the study at South Western Sydney Local Health District sites are submitted to the South Western Sydney Local Health District Research and Ethics Office accompanied by the required supporting documents. A list of the documentation required to add an Investigator to a study is located on the South Western Sydney Local Health District Research and Ethics Office website: http://www.swslhd.nsw.gov.au/ethics/forms.html

Yours sincerely

[redacted]

Annamarie D'Souza
Manager, Research and Ethics Office
South Western Sydney Local Health District (SWSLHD)